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# An analysis of consumer preferences for peaches in Salt Lake City, Utah, 1947

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# AN ANALYSIS OF CONSUMER PREFERENCES FOR PEACHES IN SALT LAKE CITY, UTAH, 1947

by

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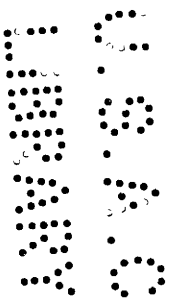

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# AN ANALYSIS OF CONSUMER PREFERENCES FOR PEACHES IN SALT LAKE CITY, UTAH, 1947

## INTRODUCTION

Peaches are the predominant tree fruit in Utah. Preliminary estimates for 1947 indicate a crop of 933,000 bushels valued at $1,679,000, which represents approximately 27 percent of the value of the major fruits 1/ grown in Utah and 1.2 percent of the value of all agricultural commodities grown in the state (5:23). It should be noted, however, that the 1947 peach crop was somewhat above normal. The estimated average annual production over the 10-year period 1938 to 1947 was 722,000 bushels.

According to the U. S. Census of Agriculture, the volume of peach production in Utah has been increasing during the past decade (8:42; 9:27). This increased production has accentuated the problem of disposing of the crop in a manner that will net a substantial profit to the producer over the years. Concentrated areas in Washington County and the foothills along the Wasatch Front in Utah, Salt Lake, Davis, Weber, and Box Elder Counties account for well over 90 percent of the production in the state. Early and late Elbertas and J. H. Hale are the most common varieties, followed by less known varieties such as late Crawford, Halberta, Johnson Elberta, Golden Jubilee, Heath Cling, Rochester, Greensboro, and others.

A large portion of the peach crop is shipped out of the state through marketing associations and brokers. Canning factories provide a market for a small portion of the crop, but the bulk of peaches consumed

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1/ Major fruits include apples, peaches, pears, apricots, cherries, grapes, and strawberries.

in Utah is marketed fresh through retail stores, fruit markets, roadside stands, and by peddling.

Inasmuch as most of the peach production in based on small orchard units within the areas designated, many problems are encountered in collecting, shipping, storing, processing, packing, and selling. These problems are being solved to some extent by activities of cooperative associations, but these associations have not provided the full solution.

The perishability of peaches makes it necessary to market the fruit almost immediately after it is picked. The crop must be moved at the right time in a manner consistent with the care needed to deliver the product to the consumer in the best possible condition at an equitable price and with a minimum of expense to the producer so that he may realize the greatest possible return for the labor and capital which he has expended.

Utah's average peach production for the ten years before World War II, for which information is available, was more than enough to supply the Utah market and an equal market in adjacent areas in southwestern Wyoming, southern Idaho, and Nevada, which make up a "home" market for Utah peaches, with sufficient volume to provide each area with a per capita consumption almost double that of the United States (table 1). Yet many of Utah's peaches are being shipped to far distant markets. The loss through spoilage, damage, and higher marketing costs to these distant markets indicates that it may be possible to increase profits by establishing markets nearer the producing areas. These shipping activities appear to be an indication that Utah may not be giving sufficient attention to developing the "home" markets. In addition, processed peaches, especially of the clingstone varieties, are being shipped into Utah and

stocked in many grocery stores—especially in the larger cities—throughout the state.

Table 1. U. S. per capita consumption and Utah per capita production of peaches, 1932-1941

| | Average per capita consumption in U. S. 1932-41 1/ | Normal per capita production in Utah, 1932-41 | |
|---|---|---|---|
| | | 550,310 2/ population | 1,100,620 population |
| Pounds | 14.4 | 45.1 | 22.5 |

1/ Agricultural Statistics. U. S. D. A. 1942. pp. 328-9.
2/ 16th Census of the U. S. U. S. D. C. 1940. p. 1,079.

The problem confronting Utah producers is to produce and market peaches that will successfully compete with both fresh and processed peaches that compete with Utah peaches both on the local and out-of-state markets. In a recent survey of peach marketing agencies, the dealers were in general agreement that "the color, flavor, and general eating qualities of Utah peaches were superior to peaches from competitive production areas" (7:6). Although these qualities are desirable, it is necessary, in addition, to place on the market a product which has been graded, sized, properly packed, and is at the stage of maturity which is most desired by consumers.

## PURPOSE OF THE STUDY

The purposes of this study are: (1) to ascertain consumers' preferences for peaches and to determine the methods of consuming fresh and commercially processed peaches; (2) to determine the nature of the demand for peaches in Salt Lake City in 1947; and (3) to evaluate the significance of the factors which make up consumers' preferences for peaches from the consumers' point of view.

## REVIEW OF LITERATURE

Until the present time, there has been no major study of consumer preferences for peaches in Utah. To the author's knowledge, there does not now exist a report on consumer preferences for peaches which is comparable to this study in the United States. There have been studies conducted on consumer demand and preferences for other food commodities, but the objectives have been varied to the extent that the information has no application to this study except for method of procedure and presentation.

In Syracuse, New York, a consumer demand study of apples and oranges was made, with emphasis on such factors as family income, quantity purchased, source of the fruit, number of uses, prices paid, size of family, per capita consumption, and expenditure for fruit. These factors were analyzed in order to determine consumer demand (4).

In North Carolina, a study published in 1947, entitled "Consumer Preferences for Sweet Potatoes", was based on family monthly income, and considered such factors as buying practices, size, color, variety, grade, sales practices, price policies, consumption practices, season of the year, and the extent to which sweet potatoes replace other foods (1).

In a study of consumer demand for meat in Syracuse, New York, 1942, consumer demand was approached from the point of view of expenditure for meat. That is, the number of items purchased multiplied by the size of the item equaled the quantity, which, when multiplied by price, gave the total expenditure. The study indicates the effect on expenditure of variables such as family and per capita income, size and composition of the family, nationality, religion, season of the year,

and other factors related to the particular locality of purchase (3).

A survey of consumer preference, which was a part of a regional peach marketing study in Colorado and Utah, was conducted in St. Paul and Minneapolis, Minnesota, by the research and service division of the Farm Credit Administration in 1947. The study included the effects which the stage of maturity of peaches, type of container, size of purchase, method of consumption, advertising, competing fruit, prices paid, size of fruit, color of fruit, and the condition and quality of the peaches in the retail store had on consumer preferences (6).

The methods used in the consumer preference studies described above, although their application and use have no bearing on this study, have offered many suggestions for conducting the survey, analyzing the data, and appraising the results.

## SOURCE OF DATA AND METHOD OF PROCEDURE

The information presented in this study is based on data obtained from 444 families in Salt Lake City, Utah. The survey was conducted between October 8 and 18, 1947. This time was chosen in order that complete data for the 1947 peach season could be obtained. In addition, the survey was near enough to the time of peach purchases that the information obtained had a relatively high degree of accuracy. The sampling was conducted in such a manner that an approximate cross section of the various family income levels in Salt Lake City, namely, high, medium, and low, was obtained. The city was stratified on the basis of assessed evaluation of residential property; through opinion of the personnel in the Utah Tax Association; by consultation with the State Department of Agriculture and the Salt Lake County assessor; and by personal inspection of the areas derived by the other three methods

of classification mentioned above. In past studies it has been found that there is a high correlation between income and value of the residence.

These income areas were selected in order to insure an adequate number of consumers with low and high incomes as well as medium incomes to permit adequate statistical analysis.

The information for each record was obtained directly from the housewife or some other member of the family who was familiar with the family's peach consumption for the past season. About 98 percent of the records were obtained from the housewife. Records which were incomplete were discarded. Non-use of peaches by members of a household was not a disqualifying factor in obtaining a record. The record of non-users of peaches was important from the standpoint of information as to why peaches were not consumed.

The questionnaire 2/ was arranged to provide a quick breakdown of total purchases into the quantities of peaches canned fresh, made into jam and jelly, eaten fresh, frozen, dried, and purchases of commercially canned peaches. In addition, a provision was made on the questionnaire to enter separately each lot of peaches purchased. A purchase of the same variety, with the same price, purchased at one time constituted one lot; different varieties purchased at the same time with uniform price for each variety constituted more than one lot; and purchases of the same variety and uniform price, purchased at different dates, represented more than one lot. This combination was adequate to classify all purchases made into lots purchased. With each lot purchased, information was obtained concerning the price, variety, grade, size, condition, where grown, where purchased, type of container, and date of purchase.

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2/ See appendix, page 76.

Other questions were asked to gain information regarding satisfaction of purchases, types and kinds of processed peaches purchased, comparison of home canned with purchased processed peaches, anticipated methods of peach consumption in the future, nationality of the housewife, family composition, and family income.

Most of the questions required quantitative information. Because of the nature of the information desired, no attempt was made by the enumerators to appraise consumers' opinions. The average amount of time required to take a record was approximately 20 minutes. After the records were taken and checked (in the field) the information on them was classified and transferred to small sorting cards 3/ of uniform size to facilitate tabulation and summarization. The tabulated and summarized data were later recorded in tables to facilitate use of the data in describing and analyzing the peach marketing study.

Salt Lake City was chosen for this study because it is the largest market in the peach producing area in Utah. There are wide ranges in family income and in types of retail outlets. There are individual growers and shippers within the peach producing area who use Salt Lake City as an outlet for their produce.

Much of the fresh and processed food used in the homes in Salt Lake City is obtained at retail food outlets. Peaches, however, show a different pattern of purchase. They may be obtained from the orchard, a roadside stand, an open fruit market, a peddler, or from the retail store. Because of this wide market selection, it was thought more practicable to approach this study from the standpoint of the consumer in the home.

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3/ See appendix, page 78.

## METHOD OF PRESENTATION

The report that follows is presented in two divisions: (1) factors which affect consumer demand for peaches, which includes a discussion of the methods of consumption, family income, the relationship of the number reporting consumption to the amount of peaches consumed, size and composition of the family, per capita consumption of peaches, elasticity of the demand for peaches, and the consumption of peaches per unit of family income; and (2) factors affecting the purchasing habits of consumers for peaches, which will be divided into discussions of the most important methods of consumption (home canning, eating fresh, and preserving into jam and jelly) based on the influences of family income, grade, size and condition of peaches, place of purchase, type of container; a comparison of home canned peaches with commercially processed peaches of different varieties; and the anticipated action of the family regarding future consumption of peaches.

## FACTORS THAT AFFECT CONSUMER DEMAND FOR PEACHES

### Methods of Consumption

The data obtained for this study revealed several methods by which peaches were consumed by families in the income areas studied. The most important methods include home canning, purchasing in commercially processed form, eating fresh, preserving into jam and jelly, and freezing. The most important method of consumption was that of home canning. Peaches were canned by 77 percent of the families. This method of consumption accounted for 65 percent of the quantity of peaches consumed. Seventy-eight percent of the consumers reported eating peaches fresh, but only 22 percent was consumed in this manner. Peaches used for jam and

jelly and for freezing accounted for only 6 percent of the consumption. Consumption by home canning, eating fresh, preserving into jam and jelly, and freezing accounted for 93 percent of the reported peach consumption. Commercially canned peaches purchased from stores made up the other 7 percent.

Percentage figures of families reporting were based on the total number of records. Five percent of the families reported no consumption of peaches for the year 1947. Average consumption per family was based on the total number of families and not on the number reporting consumption of peaches. Throughout the study averages will be based on total number of records unless otherwise stated.

## Income

Records which were otherwise complete except for income (12 percent) were not discarded. A part of the questionnaire was devoted to questions, the answers to which gave a basis for determining income. Questions were asked concerning the make and year of automobile, presence of telephone and refrigerator in the home, ownership or rental of the home, and either the amount of rent paid or the rental value of the home. The amount of rent paid was the best measure of income on the completed records since it showed a closer relationship to income than the other items mentioned. The amount of rent paid was used, therefore, to determine income for those records where income was not obtained.

### Income Groups

When the incomes of all the records were arrayed, they fell into 10 somewhat natural groups. These groups were used in the analysis of the consumption of peaches as related to family income. The total amount

of peaches consumed by the family varied directly with family income from the low to the medium income groups (table 2 and figure 1). From the medium to the high income groups, the total amount of peaches consumed per family decreased as family income increased. However, the declining level of consumption was not as pronounced from the medium to the high income groups as the inclining level of consumption was from the low to the medium income groups. The difference in degree of change was caused primarily by the amount of peaches canned fresh by each income group.

Table 2. Annual family consumption of peaches related to family income
444 families, Salt Lake City, Utah, 1947

| Income range | No. of records | Median income | Peach consumption | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Home canned | Jam and jelly | Eaten fresh | Frozen | Purchased canned | Total |
| dollars | number | dollars | pounds | pounds | pounds | pounds | pounds | pounds |
| Less than 1,376 | 34 | 920 | 48 | 4 | 20 | 1/ | 4 | 76 |
| 1,376-2,300 | 40 | 1,990 | 80 | 4 | 26 | 1/ | 6 | 116 |
| 2,301-2,475 | 46 | 2,400 | 82 | 7 | 22 | 1/ | 9 | 120 |
| 2,476-2,975 | 41 | 2,740 | 92 | 8 | 24 | 2 | 1 | 127 |
| 2,976-3,275 | 41 | 3,000 | 131 | 7 | 26 | 3 | 6 | 173 |
| 3,276-3,600 | 50 | 3,500 | 92 | 11 | 32 | 2 | 7 | 144 |
| 3,601-4,575 | 40 | 3,980 | 112 | 10 | 27 | 1 | 15 | 165 |
| 4,576-6,075 | 54 | 5,000 | 88 | 6 | 38 | 2 | 18 | 152 |
| 6,076-9,975 | 49 | 7,500 | 87 | 8 | 38 | 1 | 15 | 149 |
| 9,976 and over | 49 | 12,000 | 78 | 5 | 40 | 2 | 17 | 142 |

1/ None reported.

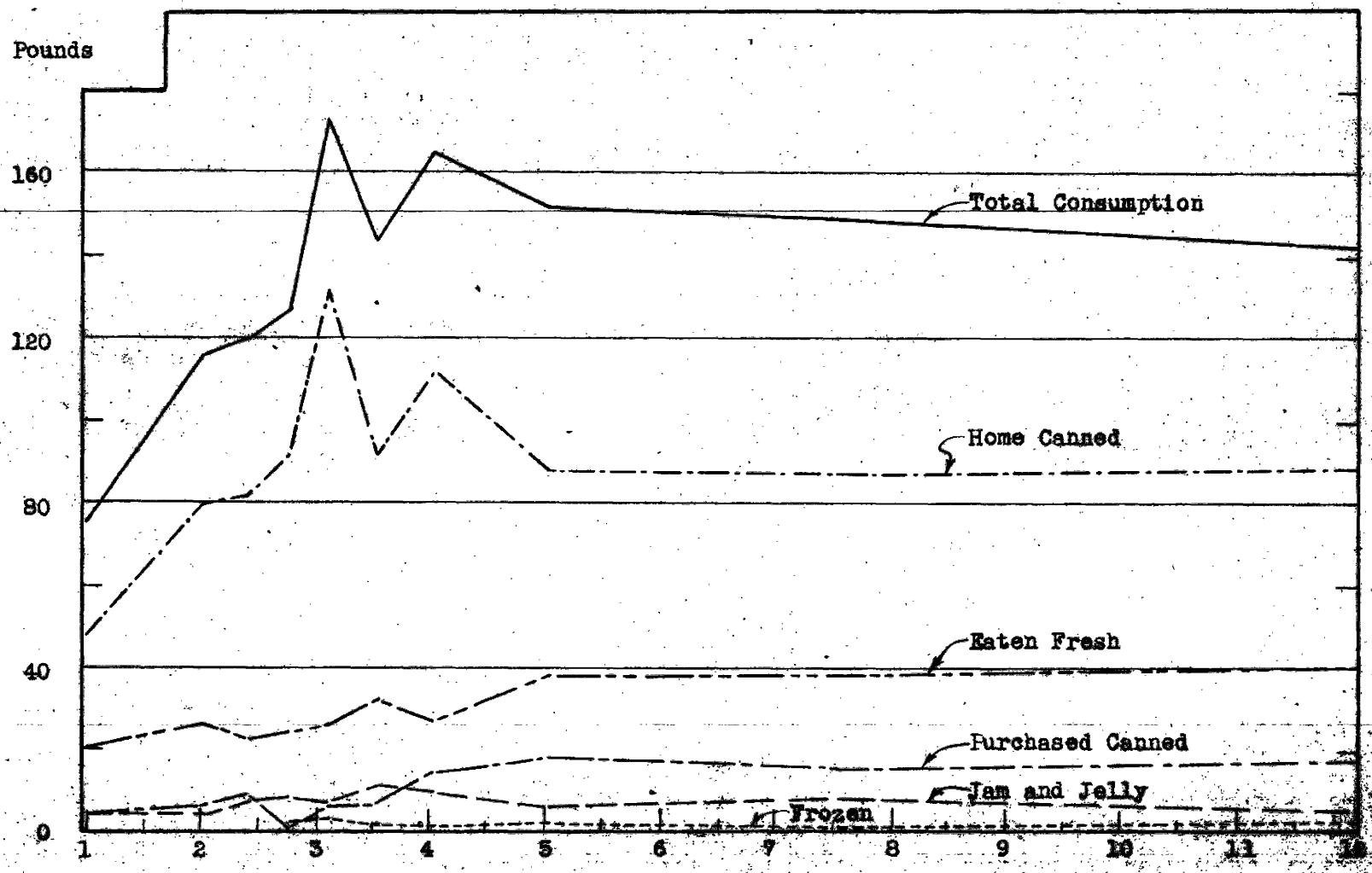


Figure 1. Family Consumption of peaches by various methods related to family income
444 Families, Salt Lake City, Utah, 1947

Size of the family income had a decided effect on the quantity of peaches consumed and the method of consumption. Families with small incomes did not exercise as much choice in the method of consumption as those with higher incomes. It is apparent that consumers who have a sufficiently large income reached a point of maximum consumption (figure 1). In such cases, income was not the limiting factor in deciding the amount of peach consumption. From the point of maximum consumption, as income increased, the consumption of peaches was governed more by likes and tastes than by income. The quantity of home canned peaches decreased as income increased beyond the medium income groups, while the quantity eaten fresh and the quantity of commercially processed peaches purchased increased. Families in the higher income groups canned fewer peaches than the families with medium incomes, but they canned more peaches than the families with low incomes.

The amount of peaches preserved into jam and jelly and the amount frozen were not significantly affected by income. Since very few peaches were purchased specially for jam, it is probable that peaches which were considered not fit for canning nor eating fresh were made into jam.

Percent reporting. The amount of peaches canned fresh per family had a close correlation to the number of families reporting consumption by that method (table 3). However, the difference between the quantity of peaches canned fresh in each successive income group from the low to the medium income level increased proportionately faster than the percent of those reporting consumption. This indicates that in the lower income groups an increase in the family income is more effective in stimulating increased consumption by those who normally consume peaches than it is in stimulating new customers to purchase peaches

(compare tables 2 and 3). The same analysis also applied to the quantity of peaches eaten fresh and the quantity of commercially processed peaches purchased from the store with the exception that with commercially processed peaches the analysis covers the increased consumption over the entire range of incomes.

Table 3. Proportion of families reporting peach consumption in various ways related to family income
444 families, Salt Lake City, Utah

| Income range | Families reporting | Percent reporting | | | | | |
|---|---|---|---|---|---|---|---|
| | | Home canned | Jam and jelly | Eaten fresh | Frozen | Purchased canned | Total consumption |
| dollars | number | percent | percent | percent | percent | percent | percent |
| Less than 1,376 | 34 | 62 | 18 | 62 | 1/ | 21 | 85 |
| 1,376-2,300 | 40 | 73 | 15 | 73 | 1/ | 18 | 93 |
| 2,301-2,475 | 46 | 78 | 28 | 76 | 1/ | 11 | 96 |
| 2,476-2,975 | 41 | 93 | 39 | 71 | 7 | 5 | 98 |
| 2,976-3,275 | 41 | 90 | 37 | 73 | 10 | 17 | 100 |
| 3,276-3,600 | 50 | 74 | 38 | 82 | 6 | 24 | 94 |
| 3,601-4,575 | 40 | 80 | 28 | 63 | 3 | 25 | 95 |
| 4,576-6,075 | 54 | 72 | 26 | 89 | 7 | 39 | 100 |
| 6,076-9,975 | 49 | 80 | 29 | 92 | 2 | 29 | 96 |
| 9,976 and over | 49 | 69 | 18 | 88 | 4 | 29 | 96 |

1/ None reported.

## Size and Composition of Family

Size of family in this study was based on the number of adults (all persons 12 years old and older) and the number of children who derived

their support from the family income and were living at home. In the low and high income groups, adults made up a little over three-fourths of the average number of persons in the family. In the medium income groups, adults made up about two-thirds the average number in the family (table 4). The average size of the family tended to increase as income increased from the low to the medium income group and then decreased slightly from the medium to the high income groups.

Table 4. Size of family and family composition related to family income
444 families, Salt Lake City, Utah, 1947

| Income range | Families reporting | Adults 1/ per family | Children per family | Total in income group | Average size of family | Children, percent of total family |
|---|---|---|---|---|---|---|
| dollars | number | number | number | number | number | percent |
| Less than 1,376 | 34 | 2.03 | 0.41 | 83 | 2.44 | 17 |
| 1,376-2,300 | 40 | 2.55 | 0.95 | 140 | 3.50 | 27 |
| 2,301-2,475 | 46 | 2.35 | 1.24 | 165 | 3.59 | 35 |
| 2,476-2,975 | 41 | 2.83 | 1.10 | 161 | 3.93 | 28 |
| 2,976-3,275 | 41 | 2.88 | 1.29 | 171 | 4.17 | 31 |
| 3,276-3,600 | 50 | 2.56 | 1.32 | 194 | 3.88 | 34 |
| 3,601-4,575 | 40 | 3.30 | 1.78 | 203 | 5.08 | 35 |
| 4,576-6,075 | 54 | 2.93 | 1.17 | 221 | 4.10 | 29 |
| 6,076-9,975 | 49 | 3.78 | 0.98 | 233 | 4.76 | 21 |
| 9,976 and over | 49 | 3.37 | 0.98 | 213 | 4.35 | 22 |

1/ Members of the family 12 years of age and older.

A graphic representation of total pounds of peaches consumed and size of family plotted on proportionate scales shows a very close

relationship between total pounds of peaches purchased and size of family (figure 2). This relationship indicates that the size of family had a definite effect on the quantity of peaches consumed per family. Other things being equal, total peach consumption varied directly and proportionately with the size of family.

Effect of Size of Family on Peach Consumption

When the records were analyzed on the basis of size of family (table 5), the large families (6 persons and over) had the highest family income. An inspection of the items in table 5 shows that, with the exception of per capita income and per capita consumption of peaches which decreased, family income, family consumption of peaches (including various methods of consumption), and the proportion of children increased as the size of the family increased. Families with 3 or fewer members had an average of 2.42 persons per family, of which 10 percent were children. The medium sized family (4 to 5 persons) was composed of two-thirds adults and one-third children, and averaged 4.44 persons. In the large sized family group (6 or more persons), children made up more than one-third of the total number of persons in the family.

The per capita consumption of peaches was, on the average, smaller for those families with more than 6 persons and larger for those families with 3 or fewer persons per family. Peach consumption per family in the large family group was 99 percent greater than in the small family group, but the family income of the large family group was only 51 percent greater than that of the small family group.

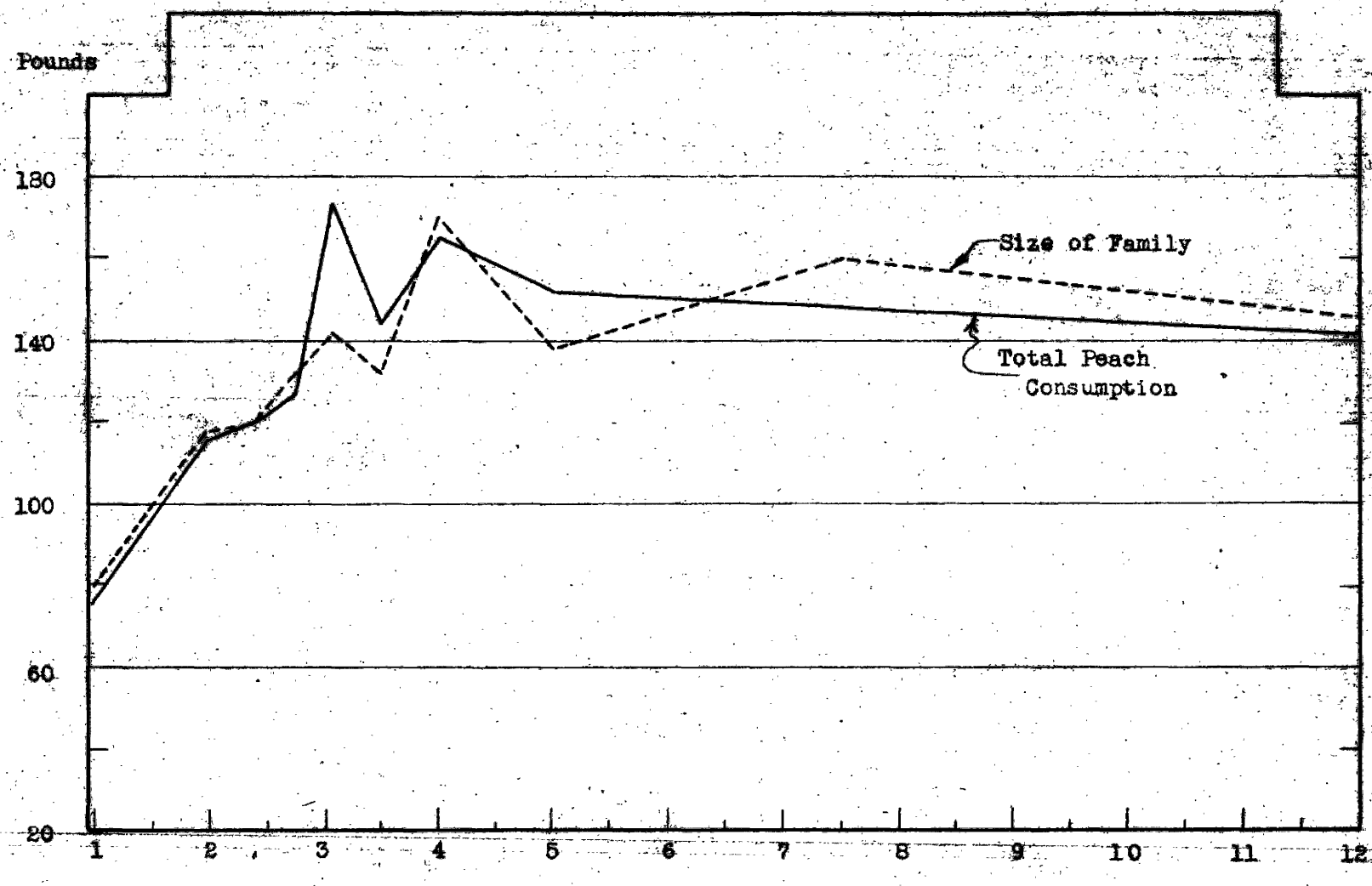


Figure 2. Size of family and total peach consumption related to family income
444 Families, Salt Lake City, Utah, 1947

Table 5. Peach consumption related to size of family
444 families, Salt Lake City, Utah, 1947

| Item | Size of family | | |
|---|---|---|---|
| | Small 1-3 | Medium 4-5 | Large 6 and over |
| Number of records | 188 | 176 | 80 |
| Income (dollars) | | | |
| Median | 2,790 | 3,600 | 4,200 |
| Per capita | 1,815 | 1,108 | 935 |
| Peach consumption (pounds) | | | |
| Home canned | 61 | 92 | 151 |
| Eaten fresh | 28 | 30 | 36 |
| Other | 16 | 20 | 22 |
| Total | 105 | 142 | 209 |
| Peach consumption per capita (pounds) | | | |
| Home canned | 25 | 21 | 22 |
| Eaten fresh | 11 | 7 | 5 |
| Other | 7 | 4 | 3 |
| Total | 43 | 32 | 30 |
| Family composition (number) | | | |
| Adults | 2.17 | 3.06 | 4.16 |
| Children | 0.25 | 1.38 | 2.68 |
| Total | 2.42 | 4.44 | 6.84 |
| Children, percent of total family | 10 | 31 | 39 |

Per Capita Consumption of Peaches Related to Family Income

Total consumption of peaches per capita did not vary greatly between the low and high income groups (table 6). Consumption of peaches by home canning per capita was at its lowest point in the high income groups. Per capita consumption was highest in the medium income groups (median income ranging from $2,740 to $3,980). The trend of consumption from the low to the medium income groups followed very closely the pattern of family consumption (compare figures 1 and 3). This similarity of

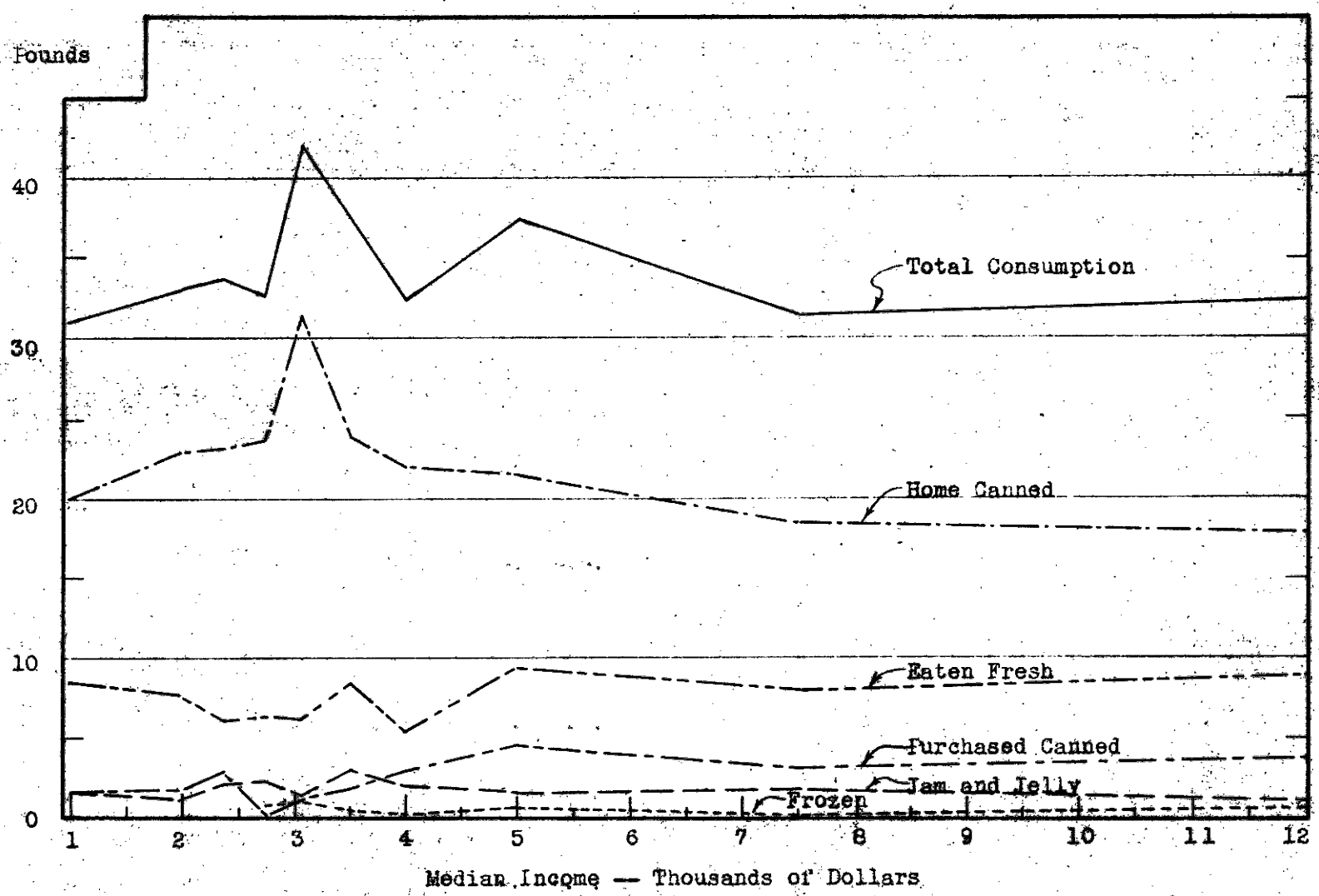


**Figure 3.** Per capita consumption of peaches by various methods related to family income 444 Families, Salt Lake City, Utah 1947

consumption indicates that the size of family income has considerable influence on peach consumption from the low income group up to a point where income is no longer a limiting factor in peach consumption. In the case of per capita and family consumption, this point was reached at the $3,000 family income level. A comparison of per capita and family consumption indicates that the amount of peaches consumed per family is due more to the size of family than to the family income.

Table 6. Annual per capita consumption of peaches related to family income 444 families, Salt Lake City, Utah, 1947

| Income range | No. of records | Median income | Consumption per capita | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Home canned | Jam and jelly | Eaten fresh | Frozen | Purchased canned | Total consumption |
| | No. | Dol. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. |
| Less than 1,376 | 34 | 920 | 19.6 | 1.5 | 8.3 | 1/ | 1.5 | 30.9 |
| 1,376-2,300 | 40 | 1,990 | 22.7 | 1.0 | 7.5 | 1/ | 1.7 | 32.9 |
| 2,301-2,475 | 46 | 2,400 | 22.9 | 2.0 | 6.0 | 1/ | 2.6 | 33.5 |
| 2,476-2,975 | 41 | 2,740 | 23.5 | 2.1 | 6.2 | 0.6 | 0.1 | 32.5 |
| 2,976-3,275 | 41 | 3,000 | 31.4 | 1.8 | 6.1 | 0.8 | 1.5 | 41.6 |
| 3,276-3,600 | 50 | 3,500 | 23.7 | 2.9 | 8.2 | 0.4 | 1.9 | 37.1 |
| 3,601-4,575 | 40 | 3,980 | 22.0 | 1.9 | 5.4 | 0.1 | 2.9 | 32.3 |
| 4,576-6,075 | 54 | 5,000 | 21.5 | 1.4 | 9.4 | 0.6 | 4.5 | 37.4 |
| 6,076-9,975 | 49 | 7,500 | 18.4 | 1.7 | 7.9 | 0.1 | 3.2 | 31.3 |
| 9,975 and over | 49 | 12,000 | 17.9 | 1.2 | 9.1 | 0.5 | 3.8 | 32.5 |

1/ None reported.

Beyond the $3,000 family income, the importance of peach consumption is determined more by the ability of the peaches to satisfy the consumer's tastes than by income. The pattern of consumption for commercially canned peaches adds support to this observation. The consumption of commercially canned peaches in the high income groups was more than double that in the low income groups. Consumption by preserving into jam and jelly and by freezing was so small that it was not significant.

Per capita consumption of peaches by home canning, preserving into jam and jelly, and freezing was smaller in the high income groups than in the low income groups. Consumption by eating fresh and purchasing commercially canned peaches from the store was larger in the high income groups than in the low income groups. The greater emphasis placed on consumption of peaches by eating them fresh and purchasing them already processed from the store indicates that as income increased people probably purchase other foods which require less effort to prepare than home canned peaches even though the peaches may cost less. It is also quite possible that people in the high income groups could not purchase peaches in the form or of the quality they desired, and, as a result, they purchased fewer peaches.

The importance of the various methods of consumption per capita related to income is shown in table 7.

## Elasticity of Demand for Peaches

The demand for a product expresses the relationship between price and the volume of purchases. A change in price will cause a change in the opposite direction in the volume of purchases except in those cases where the demand is perfectly inelastic.

Table 7. Percent of total per capita consumption of peaches in various ways related to family income 444 families, Salt Lake City, Utah, 1947

| Income range | No. of families | Percentage consumption of peaches | | | | | |
|---|---|---|---|---|---|---|---|
| | | Home canned | Jam and jelly | Eaten fresh | Frozen | Purchased canned | Total |
| dollars | number | per-cent | per-cent | per-cent | per-cent | per-cent | per-cent |
| Less than 1,376 | 34 | 63.4 | 4.8 | 26.9 | 1/ | 4.9 | 100 |
| 1,376-2,300 | 40 | 69.0 | 3.0 | 22.8 | 1/ | 5.2 | 100 |
| 2,301-2,475 | 46 | 68.4 | 6.0 | 17.8 | 1/ | 7.8 | 100 |
| 2,476-2,975 | 41 | 72.3 | 6.5 | 19.1 | 1.8 | 0.3 | 100 |
| 2,976-3,275 | 41 | 75.5 | 4.3 | 14.7 | 1.9 | 3.6 | 100 |
| 3,276-3,600 | 50 | 63.8 | 7.8 | 22.1 | 1.2 | 5.1 | 100 |
| 3,601-4,575 | 40 | 68.1 | 5.9 | 16.7 | 0.3 | 9.0 | 100 |
| 4,576-6,075 | 54 | 57.5 | 3.7 | 25.1 | 1.6 | 12.1 | 100 |
| 6,076-9,975 | 49 | 58.8 | 5.4 | 25.3 | 0.3 | 10.2 | 100 |
| 9,976 and above | 49 | 55.1 | 3.7 | 28.0 | 1.5 | 11.7 | 100 |

1/ None reported.

The degree to which purchases respond to price changes is described by the term "elasticity of demand." If the response in purchases is great for a slight change in price, the commodity has an elastic demand. In other words, demand is elastic when a small relative change in price results in a relatively large change in the volume of purchases. If the relative change in quantity is less than the relative change in the price, the demand is inelastic.

By the use of family income and the amount of peaches purchased per family as measures for comparison, the nature of the demand for

peaches can be determined. To do this, it is necessary to determine the relative increase in the expenditure for peaches with the relative increase in income. Since the total expenditure for peaches was not obtainable and since the price paid per bushel did not vary appreciably in different income groups, the quantity of peaches consumed was compared to family income to determine the nature of demand for peaches. This was accomplished by dividing the pounds of peaches consumed per family by the income per family, which gave a measure of peaches purchased per unit of income.

An increase in income is equivalent to lowering the prices of goods purchased. Therefore, if peach consumption increased more than proportionately as income increased, the demand for peaches would be elastic. On the other hand, if an increase in income resulted in a smaller proportionate increase in the consumption of peaches, the demand would be inelastic.

For purposes of presentation, the consumption of peaches was based on the pounds consumed for each $100 of income. To determine the amount of peaches consumed per $100 of income, the average amount of peaches consumed per family in each income group (see table 2) was divided by the median income of that group. The resulting figure, which represents pounds of peaches consumed per $100 of income, is comparable throughout the income groups and relates the methods of consumption, which will be mentioned in the following discussion, to a uniform base 4/.

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4/ This method of determining consumption per $100 of income is comparable to dividing total peach consumption in an income group by the number of persons within that group and then dividing the quotient by the per capita income. Median income is used in the above analysis because family income is expressed in terms of median income.

Total consumption of peaches by the family groups with small incomes was greater per $100 of income than it was in either the medium or high income groups. With the exception of an increase in one income group—the income group with a median income of $3,000—the consumption of peaches per $100 of income decreased as income increased (table 8).

Table 8. Total pounds of peaches consumed per $100 of income 444 families, Salt Lake City, Utah, 1947

| Income range | Number of families | Average consumption per family | Median income | Consumption per $100 income |
|---|---|---|---|---|
| | number | pounds | dollars | pounds |
| Less than 1,376 | 34 | 76 | 920 | 8.3 |
| 1,376-2,300 | 40 | 115 | 1,990 | 5.8 |
| 2,301-2,475 | 46 | 120 | 2,400 | 5.0 |
| 2,476-2,975 | 41 | 127 | 2,740 | 4.6 |
| 2,976-3,275 | 41 | 173 | 3,000 | 5.8 |
| 3,276-3,600 | 50 | 143 | 3,500 | 4.1 |
| 3,601-4,575 | 40 | 164 | 3,980 | 4.1 |
| 4,576-6,075 | 54 | 153 | 5,000 | 3.1 |
| 6,076-9,975 | 49 | 149 | 7,500 | 2.0 |
| 9,976 and over | 49 | 141 | 12,000 | 1.2 |

The general trend of the total consumption of peaches per $100 of income showed that as income increased the proportion of the income spent for peaches decreased. Table 8 indicates that there was a general increase in the consumption of peaches by the family as income increased, but the increase in consumption was at a slower rate than the increase in income. This analysis substantiates the conclusion that peaches had an inelastic demand in Salt Lake City in 1947.

An analysis of consumption by home canning and eating peaches fresh also shows the same general trend as that of total consumption of peaches relative to income (tables 9 and 10). The amount of peaches purchased for fresh eating compared to the amount purchased for home canning indicates that peaches eaten fresh were more of a luxury (the demand was more elastic) than peaches purchased for home canning; that is, consumers thought that peaches purchased for canning were more of a necessity than peaches purchased to eat fresh.

Table 9. Quantity of peaches home canned per $100 of income 444 families, Salt Lake City, Utah, 1947

| Income range | Number of families | Average consumption per family | Median income | Consumption per $100 income |
|---|---|---|---|---|
| dollars | number | pounds | dollars | pounds |
| Less than 1,376 | 34 | 48 | 920 | 5.2 |
| 1,376-2,300 | 40 | 80 | 1,990 | 4.0 |
| 2,301-2,475 | 46 | 82 | 2,400 | 3.4 |
| 2,476-2,975 | 41 | 92 | 2,740 | 3.4 |
| 2,976-3,275 | 41 | 130 | 3,000 | 4.3 |
| 3,276-3,600 | 50 | 92 | 3,500 | 2.6 |
| 3,601-4,575 | 40 | 112 | 3,980 | 2.8 |
| 4,576-6,075 | 54 | 88 | 5,000 | 1.8 |
| 6,076-9,975 | 49 | 87 | 7,500 | 1.2 |
| 9,976 and above | 49 | 78 | 12,000 | 0.7 |

Figure 4 shows the consumption of peaches per $100 of income. It will be noted that a greater amount of peaches per $100 of income was consumed by persons in the low income groups. This observation indicates

that a larger percent of the consumer's dollar was spent for peaches in the low than in the high income groups, or, in other words, the consumer in the low income groups placed more importance on peaches as a part of his purchases than the consumer in the high income groups. In economic terms, it can be stated that the demand for peaches in Salt Lake City during 1947 was inelastic 5/.

Table 10. Quantity of peaches eaten fresh per $100 of income 444 families, Salt Lake City, Utah, 1947

| Income range | Number of families | Average consumption per family | Median income | Consumption per $100 income |
|---|---|---|---|---|
| Dollars | number | pounds | dollars | pounds |
| Less than 1,376 | 34 | 20 | 920 | 2.2 |
| 1,376-2,300 | 40 | 26 | 1,990 | 1.3 |
| 2,301-2,476 | 46 | 22 | 2,400 | 0.9 |
| 2,476-2,975 | 41 | 24 | 2,740 | 0.9 |
| 2,976-3,275 | 41 | 26 | 3,000 | 0.9 |
| 3,276-3,600 | 50 | 32 | 3,500 | 0.9 |
| 3,601-4,575 | 40 | 27 | 3,980 | 0.7 |
| 4,576-6,075 | 54 | 38 | 5,000 | 0.8 |
| 6,076-9,975 | 49 | 38 | 7,500 | 0.5 |
| 9,976 and over | 49 | 40 | 12,000 | 0.3 |

5/ F. A. Harper, in unpublished material, concludes that "luxury" characteristics would be indicated for any item on which consumers with higher incomes spent greater proportions of their income and "necessity" characteristics would be indicated for any item on which consumers with higher incomes spent smaller proportions of their incomes. "Luxury" items have an elastic demand, whereas "necessity" items have an inelastic demand.

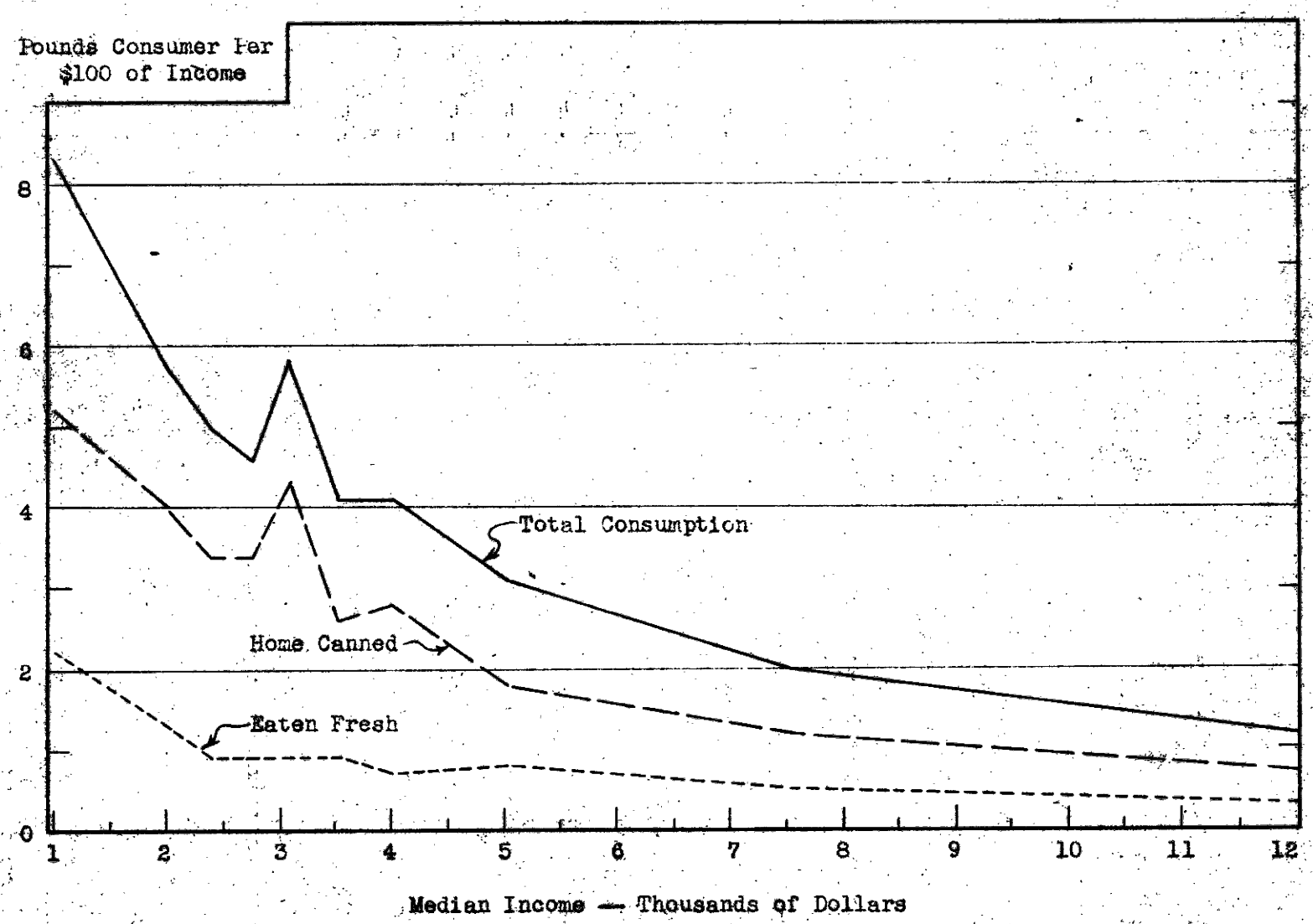


Figure 4. Family peach consumption per $100 of income related to family income

If the demand for a commodity is elastic, the total value of the crop is greater for a large than a small crop. On the other hand, if the demand is inelastic, the maximum value is realized from a small crop. When the elasticity is unity, the total value of the crop is the same regardless of the size of the crop.

The discussion of elasticity is of little value unless the degree of elasticity (how elastic the demand is) is known. By referring to the degree of elasticity in numerical terms, definite associations can be drawn. If the demand for a commodity has an elasticity of 1.0, the elasticity is unity; if the demand for a commodity has an elasticity greater than 1.0, the commodity has an elastic demand; and if a commodity has a demand whose elasticity is less than 1.0, the commodity has an inelastic demand.

Consumption of Peaches per Unit of Family Income Based on Size of Family

The procedure used to determine the amount of peaches consumed per $100 of income related to size of family is the same as that used in the discussion "Elasticity of Demand for Peaches", page 20. As already discussed, the family consumption of peaches increased as the size of the family increased (table 5), while the per capita consumption decreased as family size increased. The total amount of peaches consumed per $100 of income increased as the size of family increased (table 11). Small families consumed 3.76 pounds of peaches per $100 of income, while the large families consumed 4.97 pounds. Consumption by canning fresh per $100 of income also increased as the size of family increased. Peaches eaten fresh and other consumption, which includes jam and jelly, frozen, and commercially processed peaches, per $100 of income decreased as the size of family became larger.

Per capita income decreased as the size of family increased. An increase in the consumption of peaches per $100 of income is accounted for by the fact that the consumption of peaches increased at a faster rate than income as the size of the family increased. With reference to table 5, the per capita income decreased at a more rapid rate than consumption. Whether the analysis is made on a per capita or on a family consumption basis, the relationship is the same. This indicates that the consumer thought that purchasing peaches for home canning was more of a necessity than purchasing peaches to eat fresh.

Table 11. Peach consumption per $100 of income related to size of family
444 families, Salt Lake City, Utah, 1947

| Item | Size of family | | |
|---|---|---|---|
| | Small 1-3 | Medium 4-5 | Large 6 and over |
| Number of records | 188 | 176 | 80 |
| Income (dollars) | | | |
| Median | 2,790 | 3,600 | 4,200 |
| Per capita | 1,815 | 1,108 | 935 |
| Family peach consumption (pounds) | | | |
| Total consumption | 105 | 142 | 209 |
| Home canned | 61 | 92 | 151 |
| Eaten fresh | 28 | 30 | 36 |
| Other | 16 | 20 | 22 |
| Consumption per $100 of income (pounds) | | | |
| Total consumption | 3.76 | 3.94 | 4.97 |
| Home canned | 2.18 | 2.55 | 3.59 |
| Eaten fresh | 1.00 | 0.83 | 0.85 |
| Other | 0.58 | 0.56 | 0.53 |

## Peach Consumption by Families of Varying Size Within an Income Group

In order to analyze consumption of peaches in relation to the size of family and family income, the records were divided into three groups

on the basis of family income and then each income group was subdivided into three groups on the basis of the size of family (table 12).

Table 12. Total consumption, total quantity home canned, and total quantity of peaches eaten fresh per capita and per $100 of income related to size of family based on income groups
444 families, Salt Lake City, Utah, 1947

| Item | Income group | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Lowest third | | | Medium third | | | Highest third | | |
| Income range | Less than $2,700 | | | $2,700-$4,799 | | | $4,800 and over | | |
| Number of records | 135 | | | 157 | | | 152 | | |
| Size of family | 1-3 | 4-5 | 6 and over | 1-3 | 4-5 | 6 and over | 1-3 | 4-5 | 6 and over |
| Number of families | 80 | 39 | 16 | 54 | 74 | 29 | 54 | 63 | 35 |
| Ave. size of family | 2.2 | 4.4 | 6.6 | 2.5 | 4.5 | 6.8 | 2.7 | 4.4 | 7.0 |
| Per capita income (dollars) | 778 | 494 | 309 | 1,300 | 757 | 536 | 3,577 | 1,894 | 1,530 |
| Per capita peach consumption (Lbs.) | | | | | | | | | |
| Total consumed 1/ | 42.1 | 26.9 | 26.9 | 47.5 | 34.2 | 31.1 | 40.8 | 32.0 | 31.4 |
| Home canned | 25.1 | 18.0 | 23.2 | 28.0 | 25.2 | 22.4 | 21.1 | 16.6 | 21.2 |
| Eaten fresh | 9.2 | 5.7 | 2.9 | 11.1 | 5.7 | 4.8 | 13.5 | 8.6 | 6.3 |
| Consumption per $100 of income (Lbs.) | | | | | | | | | |
| Total consumed 1/ | 5.4 | 5.5 | 8.7 | 3.7 | 4.5 | 5.8 | 1.1 | 1.7 | 2.1 |
| Home canned | 3.2 | 3.6 | 7.5 | 2.2 | 3.3 | 4.2 | 0.6 | 0.9 | 1.4 |
| Eaten fresh | 1.2 | 1.2 | 0.9 | 0.9 | 0.8 | 0.9 | 0.4 | 0.5 | 0.4 |

1/ Includes jam and jelly and commercially processed peaches purchased from stores.

Within any one income group, as the size of the family increased, there was a decrease in: (1) total per capita consumption of peaches, (2) quantity of home canned peaches per capita, and (3) the quantity of peaches eaten fresh per capita. Within any one income group as the size of the family increased, there was an increase in the total quantity of peaches consumed and in the amount canned at home per $100 of income. The quantity

of peaches eaten fresh per $100 of income was not greatly affected by the variations in the size of the family (figure 5).

Per Capita Consumption of Peaches in Families of Similar Size

When the size of the family was held constant, per capita income increased as the family income increased. Total consumption per capita of peaches in small families increased as family income increased from the low up to the medium income groups. From the medium income groups to the high income groups, consumption decreased as income increased and was actually less in the high income groups than in the low. Total peach consumption per capita in medium and large sized families increased as family income increased with the greatest increase between the low and medium income groups. It is quite apparent that consumption of peaches per capita in families of equal size is influenced greatly by the amount of family income up to an income level where full satisfaction is realized.

Peach Consumption per Unit of Income in Families of Similar Size

Figure 6 indicates that, when the size of family was held constant, total consumption and consumption by other methods decreased per unit of family income in each size of family group as income increased. The proportion of income spent for peaches decreased as income increased. This relationship would be expected on commodities with an inelastic demand or on commodities that are considered necessities by consumers.

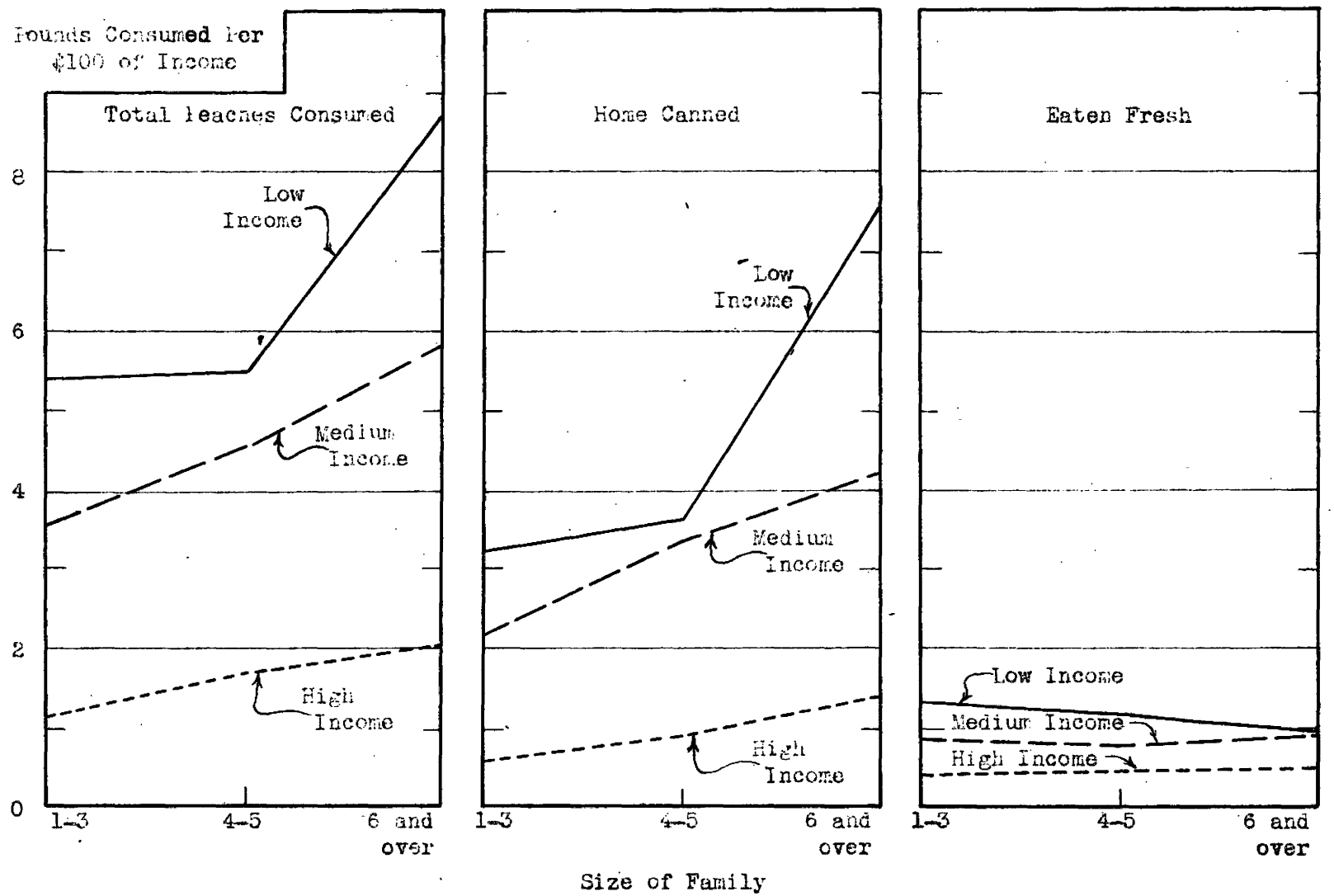


Figure 5. Peach consumption per $100 of income in various income groups related to size of family
444 Families, Salt Lake City, Utah, 1947

## Nationality of the Family

Some studies of consumers' purchasing habits show that nationality of the family has a definite effect on the buying habits of families. In this study the nationality of the housewife was obtained inasmuch as her influence, in most cases, directs the food consumption of the family. The nationality was traced back to the European origin, and the nationality stated by the housewife was used.

With the exception of 27 records, which were not sufficiently uniform to make up a nationality category, the nationality designations fell into two geographical areas, the British Isles and the Northern European countries. There was not a sufficient amount of difference between the two nationalities to warrant a closer comparison than a general study of peach consumption by each nationality group. Peaches consumed in the various ways by people of English and Northern European extraction indicate that nationality of families in Salt Lake City had no significant effect on the consumption of peaches (table 13).

Table 13. Peach consumption related to nationality of the housewife
444 families, Salt Lake City, Utah, 1947

| Item | Nationality | |
|---|---|---|
| | English 1/ | Northern European 2/ |
| Number of records 3/ | 284 | 133 |
| Income (dollars) | | |
| Median | 3,600 | 3,200 |
| Per capita | 1,334 | 1,034 |
| Peach consumption per family (pounds) | | |
| Home canned | 89.8 | 91.0 |
| Jam and jelly | 7.6 | 6.3 |
| Eaten fresh | 29.8 | 30.6 |
| Frozen | 1.4 | 1.3 |
| Purchased commercially canned | 11.7 | 7.9 |
| Total consumption- | 140.3 | 137.1 |
| Peach consumption per capita (pounds) | | |
| Home canned | 22.3 | 22.5 |
| Jam and jelly | 1.9 | 1.6 |
| Eaten fresh | 7.4 | 7.5 |
| Frozen | 0.3 | 0.3 |
| Purchased commercially canned | 2.9 | 2.0 |
| Total per capita consumption | 34.8 | 33.9 |
| Peach consumption per $100 of income (pounds) | | |
| Home canned | 1.7 | 2.2 |
| Eaten fresh | 0.6 | 0.7 |
| Other | 0.4 | 0.4 |
| Total consumption | 2.7 | 3.3 |
| Family composition (number) | | |
| Adults | 2.94 | 2.80 |
| Children | 1.09 | 1.26 |
| Total | 4.02 | 4.06 |

1/ Includes all natives of the British Isles.
2/ Includes Scandinavian countries, Germany, France, Netherlands, Baltic States, Low Countries, Switzerland, and Russia.
3/ 27 records not used.

## FACTORS AFFECTING THE HABITS OF CONSUMERS IN THE PURCHASE OF PEACHES

### Home Canning

As previously stated, home canning was the most important method of consuming peaches. Forty-four percent of the lots canned fresh were of the Elberta variety; the J. H. Hale variety made up 38 percent; and various other varieties accounted for the remaining 18 percent (table 14). The average price ($2.20) paid per bushel was about the same for Elberta and the other varieties, but Hales averaged almost 25 cents more per bushel. There was almost no difference in the number of bushels purchased in each lot 6/. Ninety percent of the consumers reporting peach consumption were satisfied with the peaches they purchased.

Table 14. Quantity purchased and price per unit related to the variety of peaches purchased for home canning 471 lots, Salt Lake City, Utah, 1947

| Item | Variety | | |
|---|---|---|---|
| | Elberta | Hale | Other 1/ |
| Number of lots purchased | 212 | 181 | 78 |
| Percent of total lots purchased | 44 | 38 | 18 |
| Bushels of peaches purchased per lot | 1.66 | 1.62 | 1.64 |
| Price of peaches | | | |
| Dollars per bushel | 2.20 | 2.44 | 2.19 |
| Cents per pound | 4.40 | 4.90 | 4.40 |

1/ Includes Halberta, Johnson Elberta, Golden Jubilee, Lemon, Late Crawford, and Orange

6/ See page 5 under "Source of Data and Method of Procedure" for description of a lot. Except when otherwise described, lots will be used. Information obtained from the lots of peaches purchased in this study is used in determining average price per bushel and to designate the variety; but the lot is not used in determining average family purchases, in tabulating family income, and in the opinion questions, which will appear later in the study, because since some families purchased more lots of peaches than others, the tabulated results would not be weighted on the basis of family purchases.

Analysis of Peach Purchases

To determine what the consumer looks for when purchasing peaches and to ascertain his attitude toward a certain variety or grade of peaches, it is necessary to make associations under the conditions that prevailed at the time the consumer made actual use of the product. Regardless of how the peaches in the container appear in the store, the final judgment is passed when the housewife begins to use them.

Quality, size, and condition of home canned peaches. The results of the tabulations show a rather close relationship between the quality, size, and condition of the peaches (table 15). Since most housewives were not acquainted with the federal grading standards for peaches, their explanation of grade assumed such terms as excellent, good, fair, and other unclassified terms in describing their interpretation of the quality of peaches purchased. Hales ranked ahead of Elbertas in excellency of quality, and other varieties outranked Hales. Other varieties such as Johnson Elberta, Halberta, Golden Jubilee, and Crawford seemed to have gained high approval by the housewife, but there were so few of these varieties that no definite conclusions can be drawn for any one of these varieties.

The condition of the peaches described the degree of maturity and ripeness. Peaches were reported to be ripe or firm in the majority of cases. Few overripe and green peaches were reported, indicating that in a production center where choice is not limited, consumers will "shop" for the type of produce that best meets their desires. More consumers were of the opinion that Hales were firmer and not as ripe as the other varieties. This opinion was probably arrived at on the assumption that

all peaches have the same texture when ripe. Usually the Hale variety has a firmer texture when ripe than the Elberta.

Table 15. Quality, size, and condition of peaches related to the variety of peaches purchased for home canning 471 lots, Salt Lake City, Utah, 1947

| Item | Variety canned fresh | | | | | |
|---|---|---|---|---|---|---|
| | Elberta | | Hale | | Other | |
| | No.Lots | Percent | No.Lots | Percent | No.Lots | Percent |
| Number of lots | 212 | 45 | 181 | 38 | 78 | 17 |
| Quality | | | | | | |
| Excellent | 52 | 25 | 59 | 33 | 27 | 35 |
| Good | 131 | 62 | 108 | 60 | 41 | 52 |
| Fair | 24 | 11 | 12 | 7 | 8 | 10 |
| Poor | 5 | 2 | 2 | 1 | 2 | 3 |
| Size | | | | | | |
| Large | 55 | 26 | 93 | 51 | 34 | 44 |
| Medium | 135 | 64 | 75 | 42 | 36 | 46 |
| Small | 17 | 8 | 9 | 5 | 8 | 10 |
| Varied | 5 | 2 | 4 | 2 | — | — |
| Condition | | | | | | |
| Overripe | 11 | 5 | 9 | 5 | 2 | 3 |
| Ripe | 140 | 66 | 103 | 51 | 46 | 59 |
| Firm | 43 | 20 | 51 | 28 | 20 | 25 |
| Green | 11 | 5 | 13 | 7 | 10 | 13 |
| Other | 7 | 4 | 5 | 3 | — | — |

Place of purchase and type of container. Possibly the high degree of uniformity in the purchase by families of ripe and firm peaches was due to the fact that the majority were purchased at the orchard. Peaches purchased at the orchard, although they are not usually commercially sorted and graded, conformed more to consumers' likes because the freshness plus the ripening of the peaches on the tree added much to the quality of the peach. Almost two-thirds of the peaches consumed were purchased at the orchard (table 16). Other retail outlets, in order of importance, were: the Growers Market Company, retail stores, roadside

stands, and the peddler at the door. A small percent of the peaches consumed were either home grown or came to the family as a gift.

Table 16. Place of purchase and type of container used related to variety of home canned peaches 471 lots, Salt Lake City, Utah, 1947

| Item | Variety purchased | | | | | |
|---|---|---|---|---|---|---|
| | Elberta | | Hale | | Other | |
| | No. lots | Percent | No. lots | Percent | No. lots | percent |
| Number of lots | 212 | 45 | 181 | 38 | 78 | 17 |
| Place of purchase | | | | | | |
| Orchard | 129 | 61 | 118 | 65 | 57 | 73 |
| Growers Market Co. | 26 | 12 | 23 | 13 | 9 | 12 |
| Retail store | 16 | 7 | 17 | 9 | 1 | 1 |
| Roadside stand | 10 | 5 | 11 | 6 | 4 | 5 |
| Peddler at door | 10 | 5 | 5 | 3 | 1 | 1 |
| Other | 21 | 10 | 7 | 4 | 6 | 8 |
| Type of container | | | | | | |
| Bushel basket | 194 | 92 | 164 | 90 | 69 | 88 |
| Lug | 11 | 5 | 16 | 9 | 9 | 12 |
| Paper bag | 2 | 1 | -- | -- | -- | -- |
| Other | 5 | 2 | 1 | 1 | -- | -- |

Date of purchase. The pattern of peach purchases follows very closely the pattern of peach harvest. The bulk of the peaches was purchased between the first and last of September. The largest number of purchases of Elbertas and other varieties took place during the first 10 days of September. Hales, which ripen about a week later than Elbertas in Utah, were purchased in larger quantities than Elbertas and other varieties from the tenth to the last of September (table 17). With the exception of time of ripening, there was little difference in the time at which the various varieties were purchased.

Table 17. Date of purchase related to variety of peaches purchased for home canning
471 lots, Salt Lake City, Utah, 1947

| Item | Variety home canned | | | | | |
|---|---|---|---|---|---|---|
| | Elberta | | Hale | | Other | |
| | No.lots | Percent | No.lots | Percent | No.lots | Percent |
| Number of lots | 212 | 45 | 181 | 38 | 78 | 17 |
| Date of purchase | | | | | | |
| August 1-15 | 6 | 3 | -- | -- | 4 | 5 |
| August 16-31 | 20 | 10 | 14 | 8 | 5 | 6 |
| September 1-9 | 70 | 33 | 54 | 30 | 32 | 41 |
| September 10-19 | 64 | 30 | 70 | 39 | 23 | 30 |
| September 20-30 | 45 | 21 | 39 | 21 | 13 | 17 |
| Other | 7 | 3 | 4 | 2 | 1 | 1 |

Commercially canned peaches. Commercial canning of peaches was the only kind of commercially processed peaches reported in this study. No data were obtained on the time of purchase of commercially canned peaches. Statements in favor of the quality of processed peaches over home canned peaches were almost negligible. Consumers who purchased commercially canned peaches preferred the freestone above the clingstone varieties.

About 60 percent of the consumers had not purchased commercially canned peaches, but those who had, when asked to compare commercially canned peaches with home canned peaches on the basis of quality and cost, were in favor of the home canned peaches (table 18). Consumers did not rate quality and costs equally in explaining the difference between home canned and commercially canned peaches. Quality was more important in the minds of consumers than cost. Few consumers thought commercially

canned peaches were superior. Some thought there was no difference between the two as far as quality and cost were concerned. The variety of the peaches canned at home had little, if any, effect on consumers' opinions. Consumers objected to the commercially canned peaches because of the heavy syrup in which they were preserved.

Table 18. Kind of commercially processed peaches purchased, their quality and cost related to varieties of home canned peaches 471 lots, Salt Lake City, Utah, 1947

| Item | Variety home canned | | | | | |
|---|---|---|---|---|---|---|
| | Elberta | | Hale | | Other | |
| | No. lots | Per-cent | No. lots | Per-cent | No. lots | Per-cent |
| Total number of lots | 212 | 45 | 181 | 38 | 78 | 17 |
| Kind of commercially processed peaches purchased | | | | | | |
| Freestone | 25 | 12 | 21 | 11 | 10 | 13 |
| Clingstone | 8 | 4 | 12 | 7 | 1 | 1 |
| None purchased | 175 | 82 | 147 | 81 | 66 | 85 |
| Did not know | 4 | 2 | 1 | 1 | 1 | 1 |
| Quality | | | | | | |
| Home canned, superior | 87 | 41 | 69 | 38 | 30 | 39 |
| Commercially processed, superior | 2 | 1 | 5 | 3 | 1 | 1 |
| Same quality | 6 | 3 | -- | -- | -- | -- |
| Undecided | 117 | 55 | 107 | 59 | 47 | 60 |
| Cost | | | | | | |
| Home canned, cheaper | 71 | 34 | 59 | 33 | 22 | 28 |
| Commercially processed, cheaper | -- | -- | 1 | 1 | -- | -- |
| Same cost | 9 | 4 | 4 | 2 | 3 | 4 |
| Undecided | 132 | 62 | 117 | 64 | 53 | 68 |

When consumers were questioned about their anticipated future activities regarding peach consumption, 96 percent reported that they would can peaches at home in preference to purchasing commercially canned peaches. More than 75 percent of the opinions were based on the

superior quality of home canned over commercially canned peaches, and about 60 percent of the consumers gave the lower cost of home canning compared to commercially canned peaches as a reason for canning more peaches at home in the future. The reliability of the reasons for preferring home canned to commercially canned peaches in future consumption cannot be accepted as a good measure because quality and cost had already been used to measure the differences between homecanned and commercially canned peaches and the housewife naturally gave the same reasons in regards to her anticipated future canning activities.

Analysis by Variety of Peaches Purchased by Different Income Groups

To determine the average amount of peaches purchased for canning at home by each family, the amount of each purchase (lot) was counted, and the aggregate divided by the number of records (only one lot used per family).

Price paid for peaches by families in various income groups. Consumers, on the average, purchased more Elbertas than Hales (table 19). They paid more money per bushel for Hales. The price paid for Elbertas ranged from $2.08 to $2.37 per bushel, and the price paid for Hales ranged from $2.33 to $2.62 per bushel between the low and high income groups, respectively. There was little difference in the price paid for peaches between the low and medium income groups. In fact, families with medium incomes paid less per bushel than families with low incomes. Families in the high income groups paid the highest price per bushel for peaches. The total cost of peaches used for home canning increased progressively from the low to the high income groups. Families in the medium income groups purchased more peaches for home canning (2.06 and 2.17 bushels of Elbertas and Hales, respectively) than families in other

income groups but at a lower price per bushel, while consumers in the high income groups purchased more peaches than those in the low income groups.

Table 19. Elberta and Hale peaches purchased for canning at home and the price paid related to income 333 records 1/, Salt Lake City, Utah, 1947

| Income group | Records | Median income | Family purchases | Price paid | | Cost of peaches purchased |
|---|---|---|---|---|---|---|
| | | | | Per bushel | Per pound | |
| | number | dollars | bushels | dollars | cents | dollars |
| | | | Elberta peaches | | | |
| Lowest third | 62 | 2,100 | 1.84 | 2.30 | 4.60 | 4.23 |
| Medium third | 67 | 3,400 | 2.06 | 2.08 | 4.20 | 4.28 |
| Highest third | 49 | 7,500 | 1.98 | 2.37 | 4.70 | 4.69 |
| | | | Hale peaches | | | |
| Lowest third | 40 | 2,400 | 1.65 | 2.34 | 4.70 | 3.86 |
| Medium third | 59 | 3,300 | 2.17 | 2.33 | 4.70 | 5.06 |
| Highest third | 56 | 7,000 | 1.94 | 2.62 | 5.20 | 5.08 |

1/ Refers to the actual record taken and not to lots of peaches purchased.

Quality, size, and condition of home canned peaches related to income. Consumers with larger incomes purchased peaches of larger size and of higher quality than consumers with lower incomes (tables 20a and 20b). One-half of the Hale peaches purchased by families with large incomes were rated excellent in quality, while only one-third of the Elbertas received the same rating by consumers with comparable incomes.

Fair and poor quality peaches made up a very small percentage of the total amount of peaches consumed and were more common in the group

of consumers with low incomes. The majority of the peaches consumed in low income groups were of good quality. Because families with high incomes purchased more peaches of excellent quality, they were less interested in purchasing peaches of any lower quality.

Table 20a. Quality, size, and condition of Elberta peaches canned at home related to income
212 lots, Salt Lake City, Utah, 1947

| | Income group | | | | | |
|---|---|---|---|---|---|---|
| | Lowest third | | Medium third | | Highest third | |
| Income range | Less than $2,700 | | $2,700-$4,799 | | $4,800 and over | |
| Median income | $2,100 | | $3,400 | | $7,500 | |
| Item | No.lots | Percent | No.lots | Percent | No.lots | Percent |
| Number of lots | 74 | 35 | 81 | 38 | 57 | 27 |
| Quality | | | | | | |
| Excellent | 14 | 19 | 18 | 22 | 19 | 33 |
| Good | 47 | 63 | 53 | 66 | 30 | 53 |
| Fair | 10 | 14 | 8 | 10 | 6 | 10 |
| Poor | 3 | 4 | 2 | 2 | 2 | 4 |
| Size | | | | | | |
| Large | 23 | 31 | 16 | 20 | 20 | 35 |
| Medium | 46 | 62 | 55 | 68 | 31 | 54 |
| Small | 3 | 4 | 8 | 10 | 6 | 11 |
| Varied | 2 | 3 | 2 | 2 | -- | -- |
| Condition | | | | | | |
| Overripe | 3 | 4 | 4 | 5 | 4 | 7 |
| Ripe | 45 | 61 | 58 | 72 | 33 | 58 |
| Firm | 19 | 26 | 15 | 18 | 13 | 23 |
| Green | 6 | 8 | 4 | 5 | 1 | 2 |
| Other | 1 | 1 | -- | -- | 6 | 10 |

Consumers in all income groups were not interested in small and various sized peaches. Uniformity of size of both large and medium sized peaches appealed to the consumers' tastes.

Table 20b. Quality, size, and condition of Hale peaches canned at home related to income
181 lots, Salt Lake City, Utah, 1947

| | Income group | | | | | |
|---|---|---|---|---|---|---|
| | Lowest third | | Medium third | | Highest third | |
| Income range | Less than $2,700 | | $2,700-$4,799 | | $4,800 and over | |
| Median income | $2,400 | | $3,300 | | $7,000 | |
| Item | No.lots | Percent | No.lots | Percent | No.lots | Percent |
| Number of lots | 46 | 25 | 76 | 42 | 59 | 33 |
| Quality | | | | | | |
| Excellent | 7 | 15 | 23 | 30 | 30 | 51 |
| Good | 33 | 72 | 46 | 61 | 26 | 44 |
| Fair | 4 | 9 | 6 | 8 | 3 | 5 |
| Poor | 2 | 4 | 1 | 1 | — | -- |
| Size | | | | | | |
| Large | 20 | 44 | 36 | 47 | 39 | 66 |
| Medium | 22 | 48 | 35 | 46 | 17 | 29 |
| Small | 3 | 6 | 3 | 4 | 3 | 5 |
| Varied | 1 | 2 | 2 | 3 | — | -- |
| Condition | | | | | | |
| Overripe | 2 | 4 | 5 | 7 | 1 | 2 |
| Ripe | 23 | 50 | 47 | 62 | 35 | 59 |
| Firm | 16 | 35 | 19 | 25 | 17 | 29 |
| Green | 4 | 9 | 4 | 5 | 5 | 8 |
| Other | 1 | 2 | 1 | 1 | 1 | 2 |

Nearly all consumers were in general agreement regarding the stage of maturity and ripeness (condition) of the peaches they canned fresh. In the case of both Elberta and Hale peaches, a very large majority of the peaches canned in the home were either firm or ripe. Approximately 60 percent of the peaches were ripe and 25 percent were firm. A larger percentage of Elbertas than Hales was reported ripe. On the other hand, a larger percentage of Hales than Elbertas was reported firm.

A general observation of the consumers' buying habits, as revealed in the study, shows that people who consume peaches, regardless of income, look for peaches with high quality, large to medium size, and peaches

which are at the right degree of ripeness for immediate consumption.

Place of purchase and type of container used. Consumers did not distinguish greatly between variety of peaches as far as the place of purchase was concerned. The pattern of peach purchases indicates that as the family income increased a smaller percent of the family's peaches were purchased at the orchard. Families with higher incomes obtained a larger percentage of peaches from the Growers Market Company, retail stores, and roadside stands than families with low incomes (table 21).

The most common type of container used was the bushel basket. Over 90 percent of the peaches purchased came in bushel baskets (table 21). The fact that consumers purchased relatively large amounts of peaches (generally not less than a bushel) for canning purposes possibly accounts for the use of the bushel basket. Also, the bushel basket has been and is the conventional peach container. It is customary and habitual for people to talk in terms of "a bushel of peaches". Families with low incomes purchased more peaches in bushel baskets than families with high incomes. The consumers with high incomes used lugs to a greater extent. The use of other types of containers was negligible.

Commercially canned peaches. The data indicate rather sporadic purchases of processed peaches throughout the year. This is an indication that consumers do not consider processed peaches an important part of their food purchases, but rather a change from the usual type of dessert. Freestone peaches were, in the opinion of consumers, the kind most frequently purchased. Less than 20 percent of the consumers in any of the income groups reported purchases of commercially canned peaches. The consumption of commercially canned peaches increased as

Table 21. Place of purchase of Elberta and Hale peaches for home canning and the type of container used related to family income 393 lots, Salt Lake City, Utah, 1947

| Item | Income group: Lowest third, Income range: Less than $2,700 | | Income group: Medium third, Income range: $2,700-$4,799 | | Income group: Highest third, Income range: $4,800 and over | |
|---|---|---|---|---|---|---|
| | No. lots | Percent | No. lots | Percent | No. lots | Percent |
| **Elberta peaches** | | | | | | |
| Median income 1/ | $2,100 | | $3,400 | | $7,500 | |
| Number of lots 1/ | 74 | | 81 | | 57 | |
| Place of purchase | | | | | | |
| Orchard | 47 | 63 | 53 | 66 | 30 | 52 |
| Growers Market Co. | 8 | 11 | 10 | 12 | 9 | 16 |
| Retail store | 7 | 9 | 4 | 5 | 4 | 7 |
| Roadside stand | 2 | 3 | 4 | 5 | 4 | 7 |
| Peddler at door | 5 | 7 | 4 | 5 | 1 | 2 |
| Other | 5 | 7 | 6 | 7 | 9 | 16 |
| Type of container | | | | | | |
| Bushel basket | 68 | 92 | 75 | 93 | 51 | 90 |
| Lug | 3 | 4 | 5 | 6 | 3 | 5 |
| Paper bag | 2 | 3 | — | — | — | — |
| Other | 1 | 1 | 1 | 1 | 3 | 5 |
| **Hale peaches** | | | | | | |
| Median income 1/ | $2,400 | | $3,300 | | $7,000 | |
| Number of lots 1/ | 46 | | 76 | | 59 | |
| Place of purchase | | | | | | |
| Orchard | 33 | 72 | 52 | 68 | 31 | 52 |
| Growers Market Co. | 5 | 11 | 11 | 14 | 10 | 17 |
| Retail store | 2 | 4 | 5 | 7 | 8 | 14 |
| Roadside stand | 1 | 2 | 4 | 5 | 6 | 10 |
| Peddler at door | 2 | 4 | 2 | 3 | 1 | 2 |
| Other | 3 | 7 | 2 | 3 | 3 | 5 |
| Type of container | | | | | | |
| Bushel basket | 44 | 96 | 69 | 91 | 51 | 86 |
| Lug | 2 | 4 | 7 | 9 | 8 | 14 |

1/ Only one lot was used for each consumer record.

family income increased. Families with high incomes consumed almost double the amount consumed by families with low incomes (table 22).

Table 22. Kind of commercially processed peaches, their quality and cost, related to home canned peaches by various family income groups
333 records, Salt Lake City, Utah, 1947

| | Income group | | | | | |
|---|---|---|---|---|---|---|
| | Lowest third | | Medium third | | Highest third | |
| Income range | Less than $2,700 | | $2,700-$4,799 | | $4,800 and over | |
| Median income | $2,250 | | $3,350 | | $7,250 | |
| Item | No. records | Per-cent | No. records | Per-cent | No. records | Per-cent |
| No. of records | 114 | 34 | 140 | 42 | 113 | 34 |
| Kind of commercially processed peaches purchased | | | | | | |
| Freestone | 10 | 10 | 14 | 11 | 18 | 17 |
| Clingstone | 1 | 1 | 10 | 8 | 4 | 4 |
| Kind unknown | 2 | 2 | 1 | 1 | 2 | 2 |
| None purchased | 89 | 87 | 101 | 80 | 81 | 77 |
| Quality | | | | | | |
| Home canned, superior | 31 | 30 | 58 | 46 | 45 | 43 |
| Commercially canned, superior | — | -- | 4 | 3 | 2 | 2 |
| Same quality | 1 | 1 | 3 | 2 | 1 | 1 |
| Undecided | 70 | 69 | 61 | 49 | 57 | 54 |
| Cost | | | | | | |
| Home canned, cheaper | 22 | 22 | 54 | 43 | 35 | 33 |
| Commercially canned, cheaper | — | — | -- | -- | — | -- |
| Same cost | 1 | 1 | 3 | 2 | 7 | 7 |
| Undecided | 79 | 77 | 69 | 55 | 63 | 60 |

The sum of the answers given by consumers relative to the comparison of peaches by quality and cost of commercially canned peaches and peaches canned fresh in the home, when segregated into income groups, indicated that regardless of family income, quality was the most important factor

considered. The majority of consumers did not express an opinion, but those who did were favorable to home canned peaches. More consumers in the higher income group were of the opinion that home canned peaches were superior to commercially canned peaches in both quality and cost. Future plans for home canning versus commercially canned peaches were overwhelmingly in favor of home canning.

Quality of Peaches Related to Variety

For means of comparison, consumers described the quality of the peaches they purchased in terms of excellent, good, fair, and poor.

Prices paid for peaches relative to quality. The price consumers were willing to pay for peaches of various qualities best explains their attitudes toward quality. A comparison of Elberta and Hale peaches shows that consumers paid a higher price for Hales. With both varieties, the amount paid per bushel decreased as the quality decreased (table 23). The range in price for Elberta peaches was from $2.40 per bushel or 4.8 cents per pound for excellent to $2.05 per bushel or 4.1 cents per pound for fair quality peaches, while Hales of excellent quality sold for $2.73 per bushel or 5.5 cents per pound to $2.00 per bushel or 4 cents per pound for fair quality.

Size and condition of peaches related to quality. The larger sized peaches consumed were given a higher quality rating by consumers. There was a decrease in the number of lots of large peaches purchased as the quality decreased from excellent to poor (table 24). The number of lots of small peaches consumed increased as the quality decreased for both Elberta and Hale peaches.

The quality of the peaches purchased was not related to the degree of ripeness to any appreciable extent. There was, however, a smaller

percentage of ripe peaches in the lots of fair quality than in those of excellent or good quality. More green peaches were reported in the lots of fair quality than in those of excellent and good quality. There was a greater proportion of overripe peaches in the lots of peaches of fair quality than in the lots of excellent or good quality.

Table 23. Purchases of and prices paid for Elberta and Hale peaches for home canning related to the quality of peaches purchased 393 lots, Salt Lake City, Utah, 1947

| Quality | Lots 1/ | Purchases per lot | Price paid Per bushel | Price paid Per pound | Cost of peaches purchased |
|---|---|---|---|---|---|
| | number | bushels | dollars | cents | dollars |
| Elberta | | | | | |
| Excellent | 51 | 1.9 | 2.40 | 4.80 | 4.56 |
| Good | 130 | 1.5 | 2.21 | 4.40 | 2.31 |
| Fair | 24 | 1.9 | 2.05 | 4.10 | 3.90 |
| Hale | | | | | |
| Excellent | 60 | 1.4 | 2.73 | 5.50 | 3.82 |
| Good | 105 | 1.7 | 2.34 | 4.70 | 3.98 |
| Fair | 13 | 2.1 | 2.00 | 4.00 | 4.20 |

1/ Seven lots of Elberta and 3 lots of Hale peaches not used.

Place of purchase and type of container. There was no marked association between the quality of peaches as interpreted by consumers and the place of purchase (table 25). The percentage of lots of fair quality Elberta peaches purchased at the orchard was the same as the percentage of peaches of excellent quality. A slightly larger percentage of lots of fair quality peaches was purchased at the Growers Market Company and at retail stores.

A higher percentage of excellent quality Hale peaches was purchased at the orchard than peaches of either good or fair quality. Hales purchased at other retail outlets did not vary in quality except at roadside stands where a larger percentage was of fair quality.

Table 24. Size and condition of Elberta and Hale peaches home canned related to quality of peaches 393 lots, Salt Lake City, Utah, 1947

| Item | Quality | | | | | |
|---|---|---|---|---|---|---|
| | Excellent | | Good | | Fair | |
| | No. lots | Percent | No. lots | Percent | No. lots | Percent |
| | | | Elberta peaches | | | |
| No. of lots 1/ | 51 | 24 | 130 | 61 | 24 | 11 |
| Size | | | | | | |
| Large | 20 | 39 | 32 | 25 | 3 | 12 |
| Medium | 28 | 55 | 85 | 65 | 16 | 67 |
| Small | 2 | 4 | 10 | 8 | 4 | 17 |
| Varied | 1 | 2 | 3 | 2 | 1 | 4 |
| Condition | | | | | | |
| Overripe | 1 | 2 | 5 | 4 | 4 | 17 |
| Ripe | 29 | 57 | 90 | 69 | 13 | 54 |
| Firm | 16 | 31 | 27 | 21 | 4 | 17 |
| Green | -- | — | 6 | 4 | 2 | 8 |
| Other | 5 | 10 | 2 | 2 | 1 | 4 |
| | | | Hale peaches | | | |
| No. of lots 1/ | 60 | 33 | 105 | 58 | 13 | 7 |
| Size | | | | | | |
| Large | 46 | 77 | 45 | 43 | 3 | 23 |
| Medium | 13 | 22 | 52 | 49 | 7 | 54 |
| Small | 1 | 1 | 5 | 5 | 3 | 23 |
| Varied | — | — | 3 | 3 | — | — |
| Condition | | | | | | |
| Overripe | — | — | 5 | 5 | 3 | 23 |
| Ripe | 37 | 62 | 65 | 62 | 4 | 31 |
| Firm | 20 | 33 | 24 | 23 | 5 | 38 |
| Green | 2 | 3 | 8 | 7 | 1 | 8 |
| Other | 1 | 2 | 3 | 3 | — | — |

1/ Seven lots of Elberta and 3 lots of Hale peaches not used.

Table 26. Date of purchase of Elberta and Hale peaches related to quality of peaches 393 lots, Salt Lake City, Utah, 1947

| Item | Quality of peaches | | | | | |
|---|---|---|---|---|---|---|
| | Excellent | | Good | | Fair | |
| | No. lots | Per-cent | No. lots | Per-cent | No. lots | Per-cent |
| | | | Elberta peaches | | | |
| No. of lots 1/ | 51 | 24 | 130 | 61 | 24 | 11 |
| Date of purchase | | | | | | |
| August 1-15 | 2 | 4 | 3 | 2 | 2 | 8 |
| August 16-31 | 5 | 10 | 12 | 9 | 4 | 17 |
| September 1-9 | 15 | 29 | 48 | 37 | 12 | 50 |
| September 10-19 | 18 | 35 | 38 | 29 | 6 | 25 |
| September 20-30 | 10 | 20 | 22 | 17 | -- | -- |
| Did not know | 1 | 2 | 7 | 6 | -- | -- |
| | | | Hale peaches | | | |
| No. of lots 1/ | 60 | 33 | 105 | 58 | 13 | 7 |
| Date of purchase | | | | | | |
| August 1-15 | -- | -- | -- | -- | -- | -- |
| August 16-31 | 4 | 7 | 6 | 6 | 3 | 23 |
| September 1-9 | 14 | 23 | 31 | 29 | 4 | 31 |
| September 10-19 | 30 | 50 | 38 | 36 | 5 | 38 |
| September 20-30 | 12 | 20 | 25 | 24 | 1 | 8 |
| Did not know | -- | -- | 5 | 5 | -- | -- |

1/ Seven lots of Elberta and 3 lots of Hale peaches not used.

There was a close relationship between the size and quality of the peaches canned in the home. As the size of peaches decreased, the quality, in the opinion of consumers, decreased. Peaches rated poor in quality were more numerous in the lots of small peaches (table 28). These relationships were the same for both Elberta and Hale peaches. The size of the peaches had no apparent effect on the degree of ripeness.

Table 27. Purchases of and prices paid for Elberta and Hale peaches for home canning related to size of peaches 393 lots, Salt Lake City, Utah, 1947

| Size | Lots 1/ | Purchases per lot | Price paid | | Cost of peaches purchased |
|---|---|---|---|---|---|
| | | | Per bushel | Per pound | |
| | number | bushels | dollars | cents | dollars |
| Elberta | | | | | |
| Large | 55 | 1.6 | 2.58 | 5.20 | 4.13 |
| Medium | 134 | 1.7 | 2.09 | 4.20 | 3.52 |
| Small | 17 | 1.2 | 2.07 | 4.10 | 2.48 |
| Hale | | | | | |
| Large | 94 | 1.8 | 2.63 | 5.30 | 4.73 |
| Medium | 74 | 1.3 | 2.30 | 4.60 | 2.99 |
| Small | 9 | 2.3 | 1.85 | 3.70 | 4.26 |

1/ Six lots of Elberta and 4 lots of Hale peaches not used.

Table 28. Quality and condition of Elberta and Hale peaches home canned related to size of peaches 393 lots, Salt Lake City, Utah, 1947

| Item | Size of peaches | | | | | |
|---|---|---|---|---|---|---|
| | Large | | Medium | | Small | |
| | No. lots | Percent | No. lots | Percent | No. lots | Percent |
| | | | Elberta peaches | | | |
| No. of lots 1/ | 55 | 26 | 134 | 63 | 17 | 8 |
| Quality | | | | | | |
| Excellent | 32 | 58 | 26 | 19 | 2 | 12 |
| Good | 20 | 36 | 86 | 64 | 10 | 59 |
| Fair | 3 | 6 | 16 | 12 | 4 | 23 |
| Poor | -- | -- | 6 | 5 | 1 | 6 |
| Condition | | | | | | |
| Overripe | 2 | 4 | 8 | 6 | -- | -- |
| Ripe | 36 | 65 | 83 | 62 | 13 | 76 |
| Firm | 10 | 18 | 34 | 25 | 2 | 12 |
| Green | 2 | 4 | 8 | 6 | 1 | 6 |
| Other | 5 | 9 | 1 | 1 | 1 | 6 |
| | | | Hale peaches | | | |
| No. of lots 1/ | 94 | 52 | 74 | 41 | 9 | 5 |
| Quality | | | | | | |
| Excellent | 46 | 49 | 12 | 16 | 1 | 11 |
| Good | 44 | 47 | 53 | 72 | 5 | 56 |
| Fair | 3 | 3 | 7 | 9 | 3 | 33 |
| Poor | 1 | 1 | 2 | 3 | -- | -- |
| Condition | | | | | | |
| Overripe | 3 | 3 | 5 | 7 | -- | -- |
| Ripe | 57 | 61 | 38 | 51 | 6 | 67 |
| Firm | 28 | 30 | 20 | 27 | 3 | 33 |
| Green | 4 | 4 | 9 | 12 | -- | -- |
| Other | 2 | 2 | 2 | 3 | -- | -- |

1/ Six lots of Elberta and 4 lots of Hale peaches not used.

As the size of peaches decreased, fewer peaches were purchased at the orchard (table 29). A larger percentage of small Elberta and Hale peaches was purchased at retail stores than medium and large peaches.

Table 29. Place and date of purchase of Elberta and Hale peaches for home canning related to size
393 lots, Salt Lake City, Utah, 1947

| Item | Size of peaches | | | | | |
|---|---|---|---|---|---|---|
| | Large | | Medium | | Small | |
| | No. lots | Percent | No. lots | Percent | No. lots | Percent |
| | | | Elberta peaches | | | |
| No. of lots 1/ | 55 | 26 | 134 | 63 | 17 | 8 |
| Place purchased | | | | | | |
| Orchard | 37 | 68 | 80 | 60 | 8 | 47 |
| Growers Market Co. | 9 | 17 | 15 | 11 | 2 | 12 |
| Retail store | 3 | 5 | 10 | 7 | 3 | 17 |
| Roadside stand | -- | -- | 8 | 6 | 1 | 5 |
| Peddler at door | 3 | 5 | 7 | 5 | -- | -- |
| Other | 3 | 5 | 14 | 11 | 3 | 18 |
| | | | Hale peaches | | | |
| No. of lots 1/ | 94 | 52 | 74 | 41 | 9 | 5 |
| Place purchased | | | | | | |
| Orchard | 62 | 66 | 44 | 59 | 6 | 67 |
| Growers Market Co. | 10 | 11 | 13 | 17 | 1 | 11 |
| Retail store | 10 | 11 | 5 | 7 | 2 | 22 |
| Roadside stand | 6 | 6 | 5 | 7 | -- | -- |
| Peddler at door | 3 | 3 | 2 | 3 | -- | -- |
| Other | 3 | 3 | 5 | 7 | -- | -- |

1/ Six lots of Elberta and 4 lots of Hale peaches not used.

Condition of peaches related to variety. There was no appreciable difference between the price paid for overripe, ripe, and firm peaches (table 30). Consumers paid the lowest price for green peaches. Green peaches had a greater tendency toward smallness of size than peaches at other stages of maturity.

Table 30. Purchases of and prices paid for Elberta and Hale peaches for home canning related to condition of peaches 393 lots, Salt Lake City, Utah, 1947

| Condition | Lots 1/ | Purchases per lot | Price paid Per bushel | Price paid Per pound | Cost of peaches purchased |
|---|---|---|---|---|---|
| | number | bushel | dollars | cents | dollars |
| Elberta | | | | | |
| Overripe | 11 | 1.5 | 2.44 | 4.10 | 3.66 |
| Ripe | 137 | 1.8 | 2.26 | 4.50 | 4.07 |
| Firm | 45 | 1.5 | 2.17 | 4.30 | 3.26 |
| Green | 10 | 1.3 | 2.00 | 4.00 | 2.60 |
| Hale | | | | | |
| Overripe | 8 | 1.5 | 2.50 | 5.00 | 3.75 |
| Ripe | 105 | 1.7 | 2.45 | 4.90 | 4.17 |
| Firm | 50 | 1.3 | 2.55 | 5.10 | 3.32 |
| Green | 21 | 1.3 | 1.92 | 3.80 | 2.50 |

1/ Four lots of Elberta and 6 lots of Hale peaches not used.

Elberta and Hale peaches which were ripe or firm had the highest quality and were larger than green and overripe peaches. Peaches which were overripe or green had a greater tendency toward fair quality in the minds of the consumers (table 31). The housewife's judgment of quality peaches was influenced by the size and the stage of maturity which most nearly met with her approval.

Elberta peaches purchased at the orchard, on the average, did not have as high a degree of ripeness as those purchased at the other retail outlets. With the exception of Hale peaches purchased at the Growers Market Company, there was a relatively high degree of ripeness of Hale peaches at all the peach outlets in Salt Lake City (table 32).

Table 31. Quality and size of Elberta and Hale peaches home canned related to condition of peaches 393 lots, Salt Lake City, Utah, 1947

| Item | Condition of peaches | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Overripe | | Ripe | | Firm | | Green | |
| | No. lots | Percent | No. lots | Percent | No. lots | Percent | No. lots | Percent |
| | | | | Elberta peaches | | | | |
| No. of lots 1/ | 11 | 5 | 137 | 65 | 45 | 21 | 10 | 5 |
| Quality | | | | | | | | |
| Excellent | 1 | 9 | 34 | 25 | 16 | 35 | — | — |
| Good | 5 | 45 | 86 | 63 | 26 | 58 | 5 | 50 |
| Fair | 4 | 37 | 13 | 9 | 3 | 7 | 3 | 30 |
| Poor | 1 | 9 | 4 | 3 | — | — | 2 | 20 |
| Size | | | | | | | | |
| Large | 2 | 18 | 40 | 29 | 10 | 22 | 2 | 20 |
| Medium | 8 | 73 | 79 | 58 | 33 | 73 | 7 | 70 |
| Small | — | — | 13 | 9 | 2 | 5 | 1 | 10 |
| Varied | 1 | 9 | 5 | 4 | — | — | — | — |
| | | | | Hale peaches | | | | |
| No. of lots 1/ | 8 | 4 | 105 | 58 | 50 | 28 | 12 | 7 |
| Quality | | | | | | | | |
| Excellent | — | — | 37 | 35 | 20 | 40 | 2 | 17 |
| Good | 5 | 63 | 64 | 61 | 24 | 48 | 7 | 58 |
| Fair | 3 | 37 | 4 | 4 | 5 | 10 | 1 | 8 |
| Poor | — | — | — | — | 1 | 2 | 2 | 17 |
| Size | | | | | | | | |
| Large | 3 | 37 | 57 | 54 | 27 | 54 | 4 | 33 |
| Medium | 5 | 63 | 38 | 36 | 20 | 40 | 8 | 67 |
| Small | — | — | 6 | 6 | 3 | 6 | — | — |
| Varied | — | — | 4 | 4 | — | — | — | — |

1/ Four lots of Elberta and 6 lots of Hale peaches not used.

Table 32. Place of purchase of Elberta and Hale peaches for home canning related to condition of peaches 393 lots, Salt Lake City, Utah, 1947

| Item | Condition of peaches | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Overripe | | Ripe | | Firm | | Green | |
| | No. lots | Per-cent | No. lots | Per-cent | No. lots | Per-cent | No. lots | Per-cent |
| | | | | Elberta peaches | | | | |
| No. of lots 1/ | 11 | 5 | 137 | 65 | 45 | 21 | 10 | 5 |
| Place purchased | | | | | | | | |
| Orchard | 6 | 55 | 79 | 58 | 31 | 69 | 7 | 70 |
| Growers Market Co. | 2 | 18 | 18 | 13 | 5 | 11 | 1 | 10 |
| Retail store | 2 | 18 | 10 | 7 | 3 | 7 | 1 | 10 |
| Roadside stand | 1 | 9 | 6 | 4 | 3 | 7 | — | — |
| Peddler at door | — | — | 8 | 6 | 1 | 2 | 1 | 10 |
| Other | — | — | 16 | 12 | 2 | 4 | — | — |
| | | | | Hale peaches | | | | |
| No. of lots 1/ | 8 | 4 | 105 | 58 | 50 | 28 | 12 | 7 |
| Place purchased | | | | | | | | |
| Orchard | 4 | 50 | 71 | 67 | 31 | 62 | 5 | 42 |
| Growers Market Co. | — | — | 13 | 12 | 7 | 14 | 3 | 25 |
| Retail store | 2 | 25 | 7 | 7 | 6 | 12 | 2 | 17 |
| Roadside stand | 2 | 25 | 7 | 7 | 2 | 4 | — | — |
| Peddler at door | — | — | 3 | 3 | 1 | 2 | 1 | 8 |
| Other | — | — | 4 | 4 | 3 | 6 | 1 | 8 |

1/ Four lots of Elberta and 6 lots of Hale peaches not used.

Place of Purchase Related to Variety

Larger lots of peaches were purchased at the orchard than at either the Growers Market Company or retail stores. Lower prices were charged at the orchard, followed by the Growers Market Company and retail stores in that order (table 33). Consumers paid almost a dollar more per bushel for Elbertas at retail stores than at the orchard. The range between the high and low prices paid for Hales at the same outlets was about forty cents. Because of the small number of lots purchased at roadside stands and from peddlers, an analysis was not made of these outlets.

Table 33. Purchases of and prices paid for Elberta and Hale peaches for home canning related to place of purchase 393 lots, Salt Lake City, Utah, 1947

| Place of purchase | Lots 1/ | Purchases per lot | Price paid | | Cost of peaches purchased |
|---|---|---|---|---|---|
| | | | Per bushel | Per pound | |
| | number | bushels | dollars | cents | dollars |
| Elberta | | | | | |
| Orchard | 130 | 1.7 | 2.10 | 4.20 | 3.57 |
| Growers Market Co. | 26 | 1.7 | 2.27 | 4.50 | 3.86 |
| Retail store | 16 | 1.3 | 3.06 | 6.10 | 3.98 |
| Hale | | | | | |
| Orchard | 115 | 1.8 | 2.34 | 4.70 | 4.21 |
| Growers Market Co. | 24 | 1.5 | 2.67 | 5.30 | 4.01 |
| Retail store | 17 | 1.3 | 2.63 | 5.30 | 3.42 |

1/ Forty lots of Elberta and 25 lots of Hale peaches not used.

The quality of both Elberta and Hale peaches purchased at the orchard was better than that of peaches purchased at the Growers Market or retail stores (tables 34a and 34b). Elberta peaches purchased at retail stores were smaller in size than those purchased at the orchard and the Growers Market. The place of purchase of Hale peaches had

almost no relation to the size of peaches. The majority of peaches which were overripe and green were purchased at the retail stores. Purchases at the Growers Market compared more nearly to the purchases at the orchard than to purchases at the retail stores as far as size was concerned.

Table 34a. Quality, size and condition of Elberta peaches home canned related to place of purchase 212 lots, Salt Lake City, Utah, 1947

| Item | Place of purchase | | | | | |
|---|---|---|---|---|---|---|
| | Orchard | | Growers Market Co. | | Retail store | |
| | No. lots | Percent | No. lots | Percent | No. lots | Percent |
| No. of lots 1/ | 130 | 61 | 26 | 12 | 16 | 8 |
| Quality | | | | | | |
| Excellent | 36 | 28 | 5 | 19 | 3 | 19 |
| Good | 73 | 56 | 18 | 69 | 9 | 57 |
| Fair | 17 | 13 | 3 | 12 | 2 | 12 |
| Poor | 4 | 3 | — | — | 2 | 12 |
| Size | | | | | | |
| Large | 37 | 29 | 8 | 31 | 3 | 19 |
| Medium | 81 | 62 | 16 | 61 | 10 | 62 |
| Small | 8 | 6 | 2 | 8 | 3 | 19 |
| Various | 4 | 3 | — | — | — | — |
| Condition | | | | | | |
| Overripe | 6 | 5 | 2 | 8 | 2 | 12 |
| Ripe | 82 | 63 | 16 | 61 | 10 | 63 |
| Firm | 31 | 24 | 5 | 19 | 3 | 19 |
| Green | 8 | 6 | 1 | 4 | 1 | 6 |
| Other | 3 | 2 | 2 | 8 | — | — |

1/ Forty lots not used. These include gifts, home grown, roadside stand, and peddler at door.

Consumers were able to purchase peaches from the orchard for a longer period of time than from any of the other retail outlets, but during the height of the season (September 1 to 20), consumers purchased a larger percentage of peaches from other retail outlets.

Table 34b. Quality, size, and condition of Hale peaches home canned related to place of purchase 181 lots, Salt Lake City, Utah, 1947

| Item | Place of purchase | | | | | |
|---|---|---|---|---|---|---|
| | Orchard | | Growers Market Co. | | Retail store | |
| | No. lots | Percent | No. lots | Percent | No. lots | Percent |
| No. of lots 1/ | 115 | 64 | 24 | 13 | 17 | 9 |
| Quality | | | | | | |
| Excellent | 40 | 35 | 8 | 34 | 5 | 29 |
| Good | 66 | 57 | 13 | 54 | 12 | 71 |
| Fair | 7 | 6 | 2 | 8 | — | — |
| Poor | 2 | 2 | 1 | 4 | — | — |
| Size | | | | | | |
| Large | 62 | 54 | 10 | 42 | 10 | 59 |
| Medium | 43 | 37 | 13 | 54 | 5 | 29 |
| Small | 6 | 5 | 1 | 4 | 2 | 12 |
| Various | 4 | 4 | — | — | — | — |
| Condition | | | | | | |
| Overripe | 4 | 3 | — | — | 2 | 12 |
| Ripe | 72 | 63 | 13 | 54 | 7 | 41 |
| Firm | 32 | 28 | 7 | 29 | 6 | 35 |
| Green | 5 | 4 | 3 | 12 | 2 | 12 |
| Other | 2 | 2 | 1 | 4 | — | — |

1/ Twenty-five lots not used. These include gifts, home grown, roadside stand, and peddler at door.

## Time of Purchase Related to Variety

The peach season was divided into 3 periods to show early, middle, and late season (August 1-30, September 1-12, and September 13-30, respectively). There was little difference in the size of lots purchased at any time during the season. Theprice of Elberta peaches remained almost the same throughout the season. The price of Hales, however, was higher in the early season and then decreased more than 40 cents per bushel by the middle of the season only to increase again during the late season. Consumers paid less for their peaches during the middle season (table 35).

Table 35. Purchases of and prices paid for Elberta and Hale peaches for home canning related to time of purchase 393 lots, Salt Lake City, Utah, 1947

| Time of purchase of peaches | Lots 1/ | Purchases per lot | Price paid Per bushel | Price paid Per pound | Cost of peaches purchased |
|---|---|---|---|---|---|
| | number | bushels | dollars | cents | dollars |
| Elberta | | | | | |
| August 1-31 | 24 | 1.7 | 2.17 | 4.30 | 3.69 |
| September 1-12 | 89 | 1.6 | 2.25 | 4.50 | 3.60 |
| September 13-30 | 91 | 1.7 | 2.21 | 4.40 | 3.76 |
| Hale | | | | | |
| August 1-31 | 13 | 1.5 | 2.78 | 5.60 | 4.17 |
| September 1-12 | 72 | 1.7 | 2.34 | 4.70 | 3.98 |
| September 13-20 | 91 | 1.6 | 2.45 | 4.90 | 3.92 |

1/ Eight lots of Elberta and 5 lots of Hale peaches not used.

Size of Purchase Related to Variety

Regardless of whether consumers purchased their peaches in 1-bushel lots or in large quantities, they paid about the same price per unit. The difference in price per pound of varying sizes of lots purchased was almost negligible (table 36).

Table 36. Purchases of and prices paid for Elberta and Hale peaches for home canning related to size of purchase 393 lots, Salt Lake City, Utah, 1947

| Size of purchase | Lots | Size of purchase | | Price paid Per bushel | Price paid Per pound | Cost of peaches purchased |
|---|---|---|---|---|---|---|
| | number | bushels | pounds | dollars | cents | dollars |
| Elberta | | | | | | |
| 50 pounds and less | 121 | 0.9 | 45 | 2.03 | 4.06 | 2.03 |
| 51-100 pounds | 52 | 1.9 | 95 | 2.17 | 4.30 | 4.12 |
| 101 pounds and over | 39 | 3.7 | 185 | 2.06 | 4.10 | 7.62 |
| Hale | | | | | | |
| 50 pounds and less | 100 | 0.9 | 45 | 2.43 | 4.90 | 2.19 |
| 51-100 pounds | 57 | 1.8 | 90 | 2.49 | 5.00 | 4.48 |
| 101 pounds and over | 24 | 4.1 | 205 | 2.37 | 4.70 | 9.72 |

When the percentages of peaches purchased at each outlet were compared, more peaches were purchased at the orchard as the size of the purchases increased (table 37). In each case, for both Elberta and Hale peaches, the percentage of purchases from the other outlets decreased as the size of purchased increased.

Table 37. Place of purchase of Elberta and Hale peaches home canned related to size of purchase 393 lots, Salt Lake City, Utah, 1947

| Item | Size of purchase | | | | | |
|---|---|---|---|---|---|---|
| | 50 pounds and less | | 51-100 pounds | | 101 pounds and over | |
| | No.lots | Percent | No.lots | Percent | No.lots | Percent |
| | | | Elberta peaches | | | |
| Number of lots | 121 | 57 | 52 | 25 | 39 | 18 |
| Place of purchase | | | | | | |
| Orchard | 73 | 60 | 29 | 55 | 28 | 71 |
| Growers Market Co. | 14 | 12 | 9 | 17 | 3 | 8 |
| Retail store | 11 | 9 | 4 | 8 | 1 | 3 |
| Roadside stand | 6 | 5 | 3 | 6 | 1 | 3 |
| Peddler at door | 5 | 4 | 3 | 6 | 2 | 5 |
| Other | 12 | 10 | 4 | 8 | 4 | 10 |
| | | | Hale peaches | | | |
| Number of lots | 100 | 55 | 57 | 31 | 24 | 14 |
| Place of purchase | | | | | | |
| Orchard | 57 | 57 | 39 | 68 | 19 | 79 |
| Growers Market Co. | 17 | 17 | 6 | 11 | 3 | 13 |
| Retail store | 10 | 10 | 6 | 11 | -- | -- |
| Roadside stand | 7 | 7 | 2 | 3 | 2 | 8 |
| Peddler at door | 4 | 4 | 1 | 2 | -- | -- |
| Other | 5 | 5 | 3 | 5 | -- | -- |

## Consumption of Peaches by Eating Fresh

Although more families reported peach consumption by eating peaches fresh than by any other method, consumption by this method represented less than one-fourth of the total amount of peaches consumed. Nearly

all consumers who ate some peaches fresh during the peach harvest season also canned some at home. Peaches which were consumed by the methods just enumerated did not receive the same rating by the housewife.

Size and Cost of Purchase

Consumption of peaches by eating them fresh was reported by 346 families. Elbertas made up 45 percent of the peaches eaten fresh and Hales and other varieties made up 28 and 27 percent, respectively. Many of the peaches eaten fresh were not purchased as separate lots, but were taken from the lots of peaches that were purchased for home canning. When this condition existed, it was necessary to have the housewife apportion the amounts consumed in the various ways. Many small lots of peaches were purchased specially for fresh eating. Consumers paid a higher price for Elbertas and other varieties than for Hales (table 38), which is the reverse of the price paid for peaches which were home canned. However, the difference in price was negligible. Apparently, Hale peaches are more desirable as a canning peach than as a fresh dessert.

Quality, Size, and Condition of Peaches Eaten Fresh

Hales were of a higher quality than Elbertas and other varieties of peaches eaten fresh. The other minor varieties mentioned previously 7/ in this study ranked about equal with Elbertas. It would appear that the large size of the Hales and other varieties was responsible for the housewife's preference of them in her selection of quality peaches. The percentage of large Hales was almost double that of large Elbertas.

There was a very close relationship between the size of the peaches home canned and those eaten fresh (tables 15 and 39).

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7/ See footnote, table 14, page 35.

Table 38. Price paid related to the variety of peaches purchased for eating fresh
436 lots, Salt Lake City, Utah, 1947

| Item | Variety | | |
|---|---|---|---|
| | Elberta | Hale | Other |
| Number of lots purchased | 196 | 121 | 119 |
| Percent of total lots purchased | 45 | 28 | 27 |
| Price of peaches | | | |
| Cents per pound | 8.70 | 8.60 | 10.00 |
| Equivalent price per bushel (dollars) | 4.34 | 4.29 | 5.44 |

Consumers preferred peaches with a higher degree of ripeness for eating fresh than for home canning. Very few overripe peaches were eaten fresh, but the percentage of ripe peaches eaten fresh was high, ranging from almost 70 percent for Hales and Elbertas to 85 percent for other varieties. A rather small percentage of firm peaches was eaten fresh. The great uniformity in size, quality, degree of ripeness, and the price paid for peaches eaten fresh indicates that the consumers shopped for the highest quality peaches available.

Place of Purchase and Type of Container

There was almost no difference in the place of purchase for all the varieties of peaches eaten fresh included in the study (table 40). Half of the peaches eaten fresh were purchased at the retail store, and about the same percentage was purchased in paper bags. Another close correlation exists between the amount of peaches purchased at the orchard (about 25 percent) and the amount purchased in bushel baskets (about 28 percent). A small percentage of peaches was purchased at the Growers Market Company, roadside stands, and from the peddler at the door. A

Table 39. Quality, size, and condition of peaches purchased for fresh eating related to variety 436 lots, Salt Lake City, Utah, 1947

| Item | Variety of peaches eaten fresh | | | | | |
|---|---|---|---|---|---|---|
| | Elberta | | Hale | | Other | |
| | No. lots | Percent | No. lots | Percent | No. lots | Percent |
| No. of lots | 196 | 45 | 121 | 28 | 119 | 27 |
| Quality | | | | | | |
| Excellent | 43 | 22 | 39 | 33 | 27 | 23 |
| Good | 124 | 63 | 73 | 60 | 69 | 58 |
| Fair | 23 | 12 | 4 | 3 | 13 | 11 |
| Poor | 6 | 3 | 5 | 4 | 10 | 8 |
| Size | | | | | | |
| Large | 51 | 26 | 61 | 50 | 55 | 46 |
| Medium | 126 | 64 | 57 | 47 | 52 | 44 |
| Small | 14 | 7 | 3 | 3 | 6 | 5 |
| Varied | 5 | 3 | — | — | 6 | 5 |
| Condition | | | | | | |
| Overripe | 11 | 6 | 2 | 2 | 2 | 2 |
| Ripe | 135 | 69 | 83 | 68 | 101 | 85 |
| Firm | 35 | 18 | 29 | 24 | 11 | 9 |
| Green | 6 | 3 | 5 | 4 | — | — |
| Other | 9 | 4 | 2 | 2 | 5 | 4 |

higher percentage of peaches was purchased in lugs for fresh eating than for home canning 8/. In order of importance, the containers used for carrying fresh peaches for eating were the paper bag, the bushel basket, and the lug.

Table 40. Place of purchase and type of container used related to variety of peaches eaten fresh 436 lots, Salt Lake City, Utah, 1947

| Item | Variety eaten fresh | | | | | |
|---|---|---|---|---|---|---|
| | Elberta | | Hale | | Other | |
| | No. lots | Percent | No. lots | Percent | No. lots | Percent |
| No. of lots | 196 | 45 | 121 | 28 | 119 | 27 |
| Place of purchase | | | | | | |
| Orchard | 52 | 27 | 30 | 25 | 26 | 22 |
| Growers Market Co. | 12 | 6 | 11 | 9 | 7 | 6 |
| Retail store | 96 | 49 | 63 | 52 | 63 | 53 |
| Roadside stand | 7 | 4 | 9 | 7 | 2 | 2 |
| Peddler at door | 9 | 4 | 1 | 1 | 5 | 4 |
| Other | 20 | 10 | 7 | 6 | 9 | 13 |
| Type of container | | | | | | |
| Bushel basket | 58 | 30 | 46 | 38 | 29 | 24 |
| Lug | 28 | 14 | 16 | 13 | 16 | 13 |
| Paper bag | 99 | 50 | 52 | 43 | 63 | 53 |
| Other | 11 | 6 | 7 | 6 | 11 | 1 |

## Date of Purchase

The dates of purchase of peaches eaten fresh did not conform to any particular period during the peach season. However, more peaches were purchased during the month of September (table 41). The majority of consumers could not remember the date of the several purchases and so indicated that the purchases were at different intervals throughout the peach season. Since there were purchases in every period used in classifying the time of purchase, there is an indication that consumers

8/ Compare tables 16, page 38 and 40 above.

purchased peaches to eat fresh whenever they were available.

Table 41. Date of purchase related to variety of peaches eaten fresh
436 lots, Salt Lake City, Utah, 1947

| Item | Variety eaten fresh | | | | | |
|---|---|---|---|---|---|---|
| | Elberta | | Hale | | Other | |
| | No. lots | Percent | No. lots | Percent | No. lots | Percent |
| Number of lots | 196 | 45 | 121 | 28 | 119 | 27 |
| Date of purchase | | | | | | |
| Aug. 1-15 | 9 | 5 | 3 | 2 | 3 | 3 |
| Aug. 16-31 | 7 | 4 | 1 | 1 | 6 | 5 |
| Sept. 1-9 | 32 | 16 | 7 | 6 | 15 | 13 |
| Sept. 10-19 | 22 | 11 | 20 | 16 | 7 | 6 |
| Sept. 20-30 | 48 | 24 | 25 | 21 | 16 | 13 |
| Throughout season | 78 | 40 | 65 | 54 | 72 | 60 |

## Peaches Used for Jam and Jelly

Twenty-eight percent of the consumers who were interviewed made some jam and jelly from the 1947 peach crop.

### Amount Purchased and Costs

Over half the peaches used for jam and jelly were Elbertas; Hales made up 27 percent. Consumers paid a cent per pound less for Elbertas than for Hales. Peaches used for jam and jelly cost less than those consumed in other ways. The equivalent cost per bushel for peaches used for jam and jelly was $1.94 for Elbertas and $2.40 for Hales (table 42). Purchases of peaches for jam and jelly averaged about 23 pounds per lot. About 6 percent of all families reporting peach consumption reported that they purchased peaches specially for jam and jelly. Many housewives

stated that peaches too ripe for canning fresh and some of the bruised peaches were used for jam and jelly.

Table 42. Price paid related to the variety of peaches purchased for jam and jelly 129 lots, Salt Lake City, Utah, 1947

| Item | Variety | | |
|---|---|---|---|
| | Elberta | Hale | Other |
| No. of lots purchased | 68 | 35 | 26 |
| Percent of total lots purchased | 53 | 27 | 20 |
| Price of peaches | | | |
| Cents per pound | 3.90 | 4.80 | 4.00 |
| Equivalent price per bushel (dollars) | 1.94 | 2.40 | 2.00 |

Quality, Size, and Condition of Peaches Used for Jam and Jelly

Hales outranked Elbertas and other varieties in size and degree of ripeness. Consumers were not so particular about the peaches that were used for jam and jelly as they were about those which they canned and ate fresh. Table 43 shows that the division between the quality, size, and degree of ripeness was not as pronounced for peaches used for jam and jelly as it was for peaches canned and eaten fresh 9/. A comparison of these tables indicates that peaches used for jam and jelly had lower quality and were smaller than those eaten or canned fresh. Peaches eaten fresh and those used for jam and jelly had a higher percentage of ripeness than peaches canned fresh. It is quite apparent that during the canning process housewives sorted their peaches and canned the better quality fresh, thus leaving the poorer quality for jam and jelly.

9/ Compare tables 15, page 37, and 39, page 67.

Table 43. Quality, size, and condition of peaches related to variety of peaches used for jam and jelly 129 lots, Salt Lake City, Utah, 1947

| Item | Variety of peaches preserved into jam and jelly | | | | | |
|---|---|---|---|---|---|---|
| | Elberta | | Hale | | Other | |
| | No. lots | Percent | No. lots | Percent | No. lots | Percent |
| No. of lots | 68 | 53 | 35 | 27 | 26 | 20 |
| Quality | | | | | | |
| Excellent | 12 | 18 | 13 | 37 | 3 | 12 |
| Good | 39 | 57 | 18 | 51 | 12 | 46 |
| Fair | 9 | 13 | 3 | 9 | 6 | 23 |
| Poor | 8 | 12 | 1 | 3 | 5 | 19 |
| Size | | | | | | |
| Large | 11 | 16 | 16 | 45 | 9 | 34 |
| Medium | 42 | 62 | 15 | 43 | 8 | 31 |
| Small | 12 | 18 | 3 | 9 | 8 | 31 |
| Varied | 3 | 4 | 1 | 3 | 1 | 4 |
| Condition | | | | | | |
| Overripe | 6 | 8 | 2 | 6 | 3 | 12 |
| Ripe | 49 | 72 | 28 | 80 | 17 | 65 |
| Firm | 11 | 16 | 3 | 8 | 4 | 15 |
| Green | 1 | 2 | 1 | 3 | 2 | 8 |
| Other | 1 | 2 | 1 | 3 | — | — |

# CONCLUSIONS

It is quite evident that the role of the consumer will receive greater recognition in the years ahead. For producers to produce what they wish and then try to convince the consumer to purchase that product is an economically unsound practice. The study indicates that producers need to give more attention to producing the types and varieties of peaches desired by consumers.

The retailer can make practical use of the findings in this study in developing a better merchandising program for peaches by giving increased attention to developing better packaging practices. Agencies that handle peaches should also determine the extent to which their customers are grouped in various income classes and then stock the kinds of peaches consumers demand.

Since per capita consumption of peaches was lower among high income families, indications are that if peaches are to compete successfully with other fruits, it will be necessary to place on the market peaches in a processed form which will be equal or superior in quality to peaches canned in the home.

The results of this study also suggest the need for further studies concerning other aspects of consumer preferences for peaches. Some of the most important studies include preferences for specially packaged peaches by variety, size, and quality, the adequacy of existing grading and packaging methods, and possibilities for improving retail methods.

## SUMMARY

The data in this study reveal many methods by which peaches were consumed by the families interviewed; namely, home canned (65 percent), eaten fresh (22 percent), commercially canned (7 percent), used for jam and jelly (5 percent), and frozen (1 percent).

An analysis of peach consumption based on income shows that as income increased from the low to the medium income groups, both family and per capita consumption of peaches increased up to a point where income was no longer a limiting factor in peach consumption. Beyond the point of full satisfaction, as income increased consumption of peaches gradually decreased. Family consumption in the high income groups was higher than in the low income groups, but per capita consumption was about equal in the high and low income groups.

There was a close correlation between the size of family and total peach consumption. As size of family increased, peach consumption per family increased; but when income was held constant, per capita consumption of peaches decreased as the size of the family increased.

The consumption of peaches decreased per unit of income as the family income increased. This relationship provides the basis for stating that peaches had an inelastic demand in Salt Lake City in 1947.

The nationality of the housewife had no noticeable effect on the purchasing habits in regard to peaches nor on the amount of peaches consumed.

Elberta and Hale peaches were the most important varieties of peaches consumed in Salt Lake City in 1947. Consumers paid a higher price for Hales ($2.44) than for Elbertas ($2.20) for home canning. The housewife's judgment of quality of peaches was closely correlated

with the size and degree of ripeness of the peaches. Based on this proposition, Hale peaches ranked higher in quality than Elbertas in the minds of the consumers. Families with the largest incomes paid the highest price for their peaches.

The orchard was the main peach outlet, followed in order by the Growers Market Company, retail stores, roadside stands, and the peddler at the door. About 90 percent of the peaches were packed in bushel baskets, and lugs were used in about 9 percent of the purchases. Higher grade peaches were packed in lugs.

Consumers who expressed an opinion (about 35 percent) were overwhelmingly in favor of home canned peaches over those commercially canned. Home canned peaches far outranked commercially canned peaches in both quality and lower cost in the opinion of consumers. Of the commercially canned peaches purchased which were reported by consumers, the freestone variety outsold the clingstone variety about 3 to 1. This relationship is an indication that consumers were not conscious of the kind of commercially canned peaches on the market since there are virtually no commercially canned freestone peaches on the Utah market.

Consumers purchased the bulk of their peaches, best quality peaches, and largest sized peaches from September 1 to September 20, which was the peak of the peach season in the Salt Lake City area. Consumers paid higher prices for the better qualities and larger sized peaches. They paid lowest prices for peaches purchased at the orchard and highest prices at retail stores.

Consumers preferred Elbertas to Hales for eating fresh and paid a higher price for them. They paid almost twice as much for peaches

which they ate fresh as for those they canned at home. Peaches eaten fresh were at a higher degree of ripeness than those canned fresh. More than half of the peaches eaten fresh were purchased at retail stores and were purchased in paper bags. Consumers began purchasing peaches to eat fresh in the early season and continued their purchases throughout the peach season.

Many of the peaches used for jam and jelly were peaches which were not desirable for home canning and were taken from the lots purchased for home canning. Those who reported purchases of peaches specially for jam and jelly paid more for Hales than Elbertas; but the price paid for peaches to be used for jam and jelly was less than the price paid for those purchased for canning and eating fresh.

Enumerator _____
Checked by _____

Record No. _____
Date _____
Area _____

Department of Agricultural Economics
Utah State Agricultural College
Logan, Utah

Address of Cooperator _____

| Item | Canned fresh | | | Jam and jelly | | Consumed fresh | | | | | Frozen | Dried | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | First lot | Second lot | Third lot | First lot | Second lot | First lot | Second lot | Third lot | Fourth lot | Fifth lot | | | |
| Peach consumption<br>Bushels | | | | | | | | | | | | | |
| Pounds | | | | | | | | | | | | | |
| Price<br>Per bushel | | | | | | | | | | | | | |
| Per pound | | | | | | | | | | | | | |
| Variety of peaches | | | | | | | | | | | | | |
| Grade of peaches<br>Federal | | | | | | | | | | | | | |
| Quality | | | | | | | | | | | | | |
| Size of peaches | | | | | | | | | | | | | |
| Condition of peaches | | | | | | | | | | | | | |
| Where were peaches grown (state) | | | | | | | | | | | | | |
| Type of container peaches came in | | | | | | | | | | | | | |
| Where were peaches purchased | | | | | | | | | | | | | |
| Date peaches were purchased | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Were special peaches purchased for jam and jelly?_____

Were you satisfied with the peaches purchased for canning?_____

Why or why not?_____

_____

_____

Do you buy canned peaches from stores?

Clingstone_____

Number of cans, gallons _____ 2½ size can _____ smaller_____

Freestone_____

Number of cans, gallons _____ 2½ size can_____ smaller_____

How do purchased canned peaches compare with home canned peaches as to quality?_____

_____

As to cost?_____

Do you plan to can or buy your peaches in the future?_____ Why?_____

_____

Family composition:

Nationality of family_____

Adults and children 12 years of age and over _____

Children under 12 years _____

Total number in family_____

General information:

Number of rooms in house_____

Home owned _____ Rented_____

Rent paid or rent equivalent_____ Telephone_____

Make and year of car _____ Refrigerator_____

Family income:

Head of family per week_____ month_____ year_____

Contribution of other members of the family to family living expenses per

week_____ month_____ year_____

Peach Marketing Survey
Card I

| | |
|---|---|
| Number | 1 |
| Location | 2 |
| Area | 3 |
| Peaches. canned fresh (#) | 4 |
| Jam and jelly (#) | 5 |
| Consumed fresh (#) | 6 |
| Frozen (#) | 7 |
| Dried (#) | 8 |
| Purchased canned peaches (#) | 9 |
| Total consumption (#) | 10 |
| Number $2\frac{1}{2}$ size cans purch. | 11 |
| Number smaller cans purch. | 12 |
| Nationality of housewife | 13 |
| Adults | 14 |
| Children | 15 |
| Total | 16 |
| Number of rooms in house | 17 |
| Home owned or rented | 18 |
| Rent paid | 19 |
| Make and year of car | 20 |
| Telephone | 21 |
| Refrigerator | 22 |
| Income head of family | 23 |
| Additional income | 24 |
| Total | 25 |

Peach Marketing Survey
Card II

| | |
|---|---|
| Market number | 1 |
| Income area | 2 |
| Kind of purchase | 3 |
| Pounds purchased | 4 |
| Price per bushel | 5 |
| Price per pound | 6 |
| Variety | 7 |
| Grade--federal | 8 |
| Grade--quality | 9 |
| Size | 10 |
| Condition | 11 |
| Where grown | 12 |
| Type of container | 13 |
| Where purchased | 14 |
| Date purchased | 15 |
| Special jam | 16 |
| Satisfied with peaches | 17 |
| Kind of canned peach purch. | 18 |
| Best quality | 19 |
| Cheapest | 20 |
| Can or buy in future | 21 |
| Cheaper | 22 |
| Better quality | 23 |
| Other | 24 |
| Nationality | 25 |
| Total family income | 26 |

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